United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Alaska State Office
222 West Seventh Avenue, #13
Anchorage, Alaska 99513-7599
http://www.ak.blm.gov

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SEP 29 2005

FF-094263 (1864)

Memorandum

To: Chief, Branch of Lands and Realty (932)

From: Navigable Waters Specialist

Subject: Navigability of Salcha River in the Tanana River Region

On May 12, 2004, the State of Alaska filed an application for a Recordable Disclaimer of Interest (RDI) for the bed of the Salcha River and "all interconnecting sloughs" within the ordinary high water lines of the left and right banks from its headwaters in T. 3 N., R. 19 E., Fairbanks Meridian (FM), downstream to its confluence with the Tanana River in T. 5 S., R. 4 E., FM. The State also submitted three maps dated April 7, 2004, showing the Salcha River, as well as a legal description of the townships and ranges encompassing the river.

In its application, as amended by letter dated June 8, 2005, the State claims to own the land underlying the Salcha River. The State's claim is based upon the Equal Footing Doctrine, the Submerged Lands Act of 1953, the Alaska Statehood Act, the Submerged Lands Act of 1988, and "any other legally cognizable reason." As evidence of its claim, the State submitted copies of a Bureau of Land Management (BLM) land title report dated February 1, 1980; six BLM navigability-related memoranda dated June 23, 1980, January 27, 1984, April 15, 1988, March 13, 1989, February 6, 1991, and October 15, 2003; and a BLM Decision of January 29, 1982 which modified its Decision of November 13, 1963, to exclude the Salcha River from lands tentatively-approved to the State of Alaska.[1] The BLM issued the memoranda and the decision in support of land conveyances to the State of Alaska and Native allottees under the Alaska Statehood Act and the Native Allotment Act, respectively.

By letter dated June 22, 2005, the State submitted comments on a draft of this memo. The State expressed agreement with the conclusion that the Salcha River was navigable from its mouth to

[1] Tom Irwin to Henri Bisson, BLM, May 12, 2004, file FF-94263 (1864), Records of the Bureau of Land Management (BLM), Alaska State Office, Anchorage (hereafter BLM records, Anchorage).

and through T. 3 S., R. 14 E., FM, a distance of approximately 92 miles. The State disagreed with the BLM's preliminary finding that there was insufficient information to determine the navigability of the river between river miles 92 and 112 and that the river beyond river mile 112 was not navigable. The State provided additional evidence of use of the Salcha River for the BLM's consideration. The State's navigability report dated November 1, 2001, contains a description of the Salcha River and several accounts of contemporary boating trips up the river from the Richardson Highway bridge for distances ranging from 25 miles to 130 miles. The State also provided its record of interviews conducted on June 20, 2005, with two well-known boaters of the Salcha River. One regularly boats as far upstream as Boulder Creek (river mile 81) in a jet boat; the other routinely ascends the river to and beyond Dan Creek (river mile 113) in an airboat.[2]

The purpose of this paper is to review the merits of the State's application and, where necessary, to establish the extent of navigability of the Salcha River. The paper also considers whether there exist any grounds to change or modify BLM's past navigability findings for the river.

Since the State did not provide information about use, or susceptibility of use, of "interconnecting sloughs" for travel, trade, and commerce at statehood, this report will only address the main stem of the Salcha River, not its "interconnecting sloughs." The term "interconnecting sloughs" is ambiguous and imprecise and, without a land survey and a historic reconstruction of the river, it is impossible to identify the specific "interconnecting sloughs" included in the State's application. The location of the ordinary high water mark (the legal boundary) of water bodies changes over time. If water from any navigable portion of the Salcha River flows through a slough, then that slough is considered part of the river and title to lands underlying the slough would have passed to the State at the time of statehood. However, title to the riverbed may subsequently be affected by changes resulting from erosion, accretion or reliction.

Land Status

Most riparian lands along the Salcha River have been conveyed out of federal ownership. The State of Alaska owns most lands abutting the river from its mouth to and through T. T. 3 S., R. 14 E., FM, a distance of approximately 92 miles (thirteen townships).[3] Upstream, the BLM manages the riparian lands in four townships: Tps. 2 S., Rs. 14-16 E., FM, and T. 1 S., R. 16 E., FM. (The State of Alaska has selected all lands in the four townships.[4]) This is generally the reach between river miles 92 and 112. The State of Alaska owns the riparian lands beyond this reach, that is, the six townships encompassing the river from T. 1 N., R. 16 E., FM, upstream to the head of the river in T. 3 N., R. 19 E., FM (six townships).[5]

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[2] See Scott Ogan, Natural Resource Manager, to C. Michael Brown, June 22, 2005, and attachments, State of Alaska, Department of Natural Resources, "Salcha River Navigability Report, November 1, 2001, and Jim Szender to File, June 21, 2005, file FF-94263, BLM records, Anchorage.

[3] None of the lands abutting the Salcha River have been conveyed to or selected by an Alaska Native Claims Settlement Act corporation.

[4] The State's applications are serialized as F-88696, F-88697, F-88691, and F-88698.

[5] The lands have been tentatively approved to the State: T. 1 N., R. 16 E., FM (F-79675), T. 2 N., R. 16 E., FM (F-79676), T. 3 N., R. 16 E., FM (F-79677), T. 3 N., R. 17 E., FM (F-79680), T. 3 N., R. 18 E., FM (F-79683) and in T. 3 N., R.19 E., FM (F-79686).

Numerous individuals own five-acre parcels of land abutting the river. Most of these were obtained under the Small Tract Act. The uppermost parcel along the river is located in Section 8, T. 4 S., R. 8 E., FM, below the mouth of Flat Creek (Mile 39). The parcels are scattered along the river farther downstream, but most are clustered along the river in T. 5 S., R. 4 E., FM, just above and below where the Richardson Highway bridge crosses the river. It is important to note that the United States reserved the mineral interests in numerous small tract patents. Going downstream, there are two such parcels in T. 4 S., R. 7 E., FM;[6] seven in T. 5 S., R. 6 E., FM;[7] two in T. 5 S., R. 5 E., FM[8]; and seventeen in T. 5 S., R. 4 E., FM.[9] The BLM also administers one isolated five-acre surveyed parcel (USS 4523) along the river in T. 5 S., R. 5 E., FM.

Two Native allotments are also located along the Salcha River. One is located on the right bank of the river in Secs. 1 and 2, T. 4 S., R. 8 E., FM; and one is located on the right bank in Sec. 21, T. 5 S., R. 4 E., FM, which is below the Richardson Highway bridge crossing of the river. Certificates to both allotments have been issued. In both cases, the BLM meandered the river and segregated the uplands from the riverbed.

No part of the Salcha River was reserved at the time of statehood. The U.S. Geological Survey maps (Big Delta D-1 and D-2) show the upper reaches of the Salcha River in a military reservation. The south boundary of the reservation crosses the Salcha River about two miles downstream of the mouth of Paldo Creek (mile 107). The BLM records show that the military filed an application for the withdrawal on February 11, 1959, which is after the date of statehood.

BLM Navigability Determinations

The Salcha River empties into the Tanana River in T. 5 S., R. 4 E., FM. There is no record of the Bureau or the General Land Office having made an administrative navigability determination for this river reach (approximately the first five and a half miles of the river). Because the river averages more than three chains (198 feet) in width in this township, federal surveyors meandered the river and segregated the riverbed from uplands on the survey plats. The uplands in this township were subsequently conveyed out of federal ownership by patents. As noted above, the United States reserved the mineral interests in seventeen small tract patents to land in this township.

Beyond this first five-and-a-half-mile section, the BLM has issued numerous navigability determinations for different sections of the river. All of the determinations were made in support of land conveyances under the Alaska Statehood Act. In general, the agency has determined the river to be navigable upstream from T. 5 S., R. 4 E., FM, to and through T. 3 S., R. 14 E., FM, a distance of approximately 87 miles. The navigability of a long section of the river (21 miles) in

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[6] See patent numbers (nos.) 50-70-0015 and 50-67-0076.
[7] See patent nos. 50-67-0354, 50-67-0399, 50-67-0460, 50-67-0133, 50-67-0416, 50-67-0589, and 50-67-0331.
[8] See patent nos. 50-66-0560 and 50-67-0423.
[9] Ten are located in Section 22: patent nos. 1146833, 1200571, 1231955, 1179455, 1146829, 1179453, 1148038, 1150973, 1179443, and 1147534. Seven are located in Section 23: patent nos. 1200572, 1200573, 1177710, 1177711, 1210592, 1200574, and 1208793.

four townships (T. 1 S., R. 16 E., and T. 2 S., Rs. 14-16 E., FM) has not yet been determined. Beyond this section, the BLM has determined the river to be non-navigable.

The BLM first addressed the navigability of the Salcha River while processing land selection applications under the Alaska Statehood Act. On June 23, 1980, the BLM's Fairbanks District Office concluded that the river was navigable as far upstream as the mouth of Paldo Creek (Mile 107). Subsequently, between 1980 and 1984 the BLM issued appealable decisions tentatively approving the conveyance of lands along the lower 92 miles of the Salcha River. The decisions included a determination that these river sections were navigable.[10] The decisions were not appealed. Many of these townships have since been patented.[11]

In support of its navigability determinations, the BLM relied upon historical evidence of miners traveling up the river in boats as far as the mouth of Caribou Creek. A BLM examiner summarized the evidence as follows:

> Access up river was either by poling boat or overland. Miners eventually established a trail on the east side from the river's mouth to Caribou Creek. At low water horses were used to tow shallow draft boats as far as Butte and Caribou Creeks (tributaries from the north 50 miles above the mouth). The gravel bars of the river at low water are laid bare for considerable distances and a horse could easily ford the river from side to side while towing the boat loads of supplies. This could not be done at high water. Trips down river were also made in the poling boats and were a dangerous undertaking due to the riffles and log jams. Besides placer mining, trapping and hunting also occurred. A lot of the moose killed on the Salcha River were sold in Fairbanks.[12]

Acknowledging that "[s]ome difficulty may be encountered in the longer shallow riffle areas with a power boat just below Paldo Creek," the BLM examiner considered the river to be navigable as far upstream as the mouth of Paldo Creek (Mile 107) based upon recreational use and the river's physical characteristics:

> Above Caribou Creek the river does not drastically change its physical characteristics. The main river channel is able to support shallow draft power boats as far up as Paldo Creek. Boat traffic because of the river's size could be sustained for the purpose of travel, trade, and commerce. The amount of past and present recreational uses are a positive corroborating factor. The Salcha River

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[10] The decision of December 1, 1980, determined the river to be navigable in T. 3 S., Rs. 8-11E., and T. 4 S., 9 E., FM. The decision of September 10, 1980, determined the river to be navigable in Tps. 3 S., Rs. 11-14 E., FM. The decision of January 29, 1982, determined the river to be navigable in T. 5 S., R. 7 E., FM. The decision of August 9, 1982, determined the river navigable in T. 5 S., Rs. 5 and 6 E., FM. The decision of September 4, 1985 determined the river navigable in Tps. 4 S., Rs. 6 and 7 E., FM. See decisions in files F-488 (2627), F-489 (2627), F-490 (2627), F-491 (2627), F-494 (2627), F-29689 (2620), F-29691 (2620), F-29695 (2620) and F-44053 (2620), BLM records, Anchorage.

[11] While we excluded the bed of the river from a 1986 patent to the State of Alaska in T. 4 S., R. 7 E., FM, we included it in the same patent in Sec. 36, T. 4 S., R. 6 E., FM. See patent no. 50-86-0023, file F- 494 (2627), BLM records, Anchorage.

[12] K. Leroy Cook, Land Report—Navigability Recommendations, February 1, 1980, file F-44058 (for T. 3 S., R. 12E., FM), BLM records, Anchorage. The BLM's Fairbanks District Office (FDO) manager concurred on May 28, 1980. The FDO also made recommendations for T. 5 S., R. 5 E., FM, which were suspended in part by the ASO because of a recommendation regarding Harding Lake. Jules Tileston to State Director, June 20, 1980. Acting Associate SD Robert W. Arndorfer concurred on June 23.

> has such length and capacity which enables it to accommodate the public generally as a means of waterborne transportation.[13]

At the present time, the BLM is the sole Federal land manager of riparian lands along the Salcha River, specifically in T. 1 S., R. 16 E., FM, and T. 2 S., Rs. 14-16 E., FM. This is a section, approximately 11 miles long, extending from near the mouth of Porcupine Creek (Mile 93) upstream to a point beyond the mouth of Paldo Creek (Mile 107). The State of Alaska has selected all uplands, including the riparian lands, in these townships. In 2003 the BLM's navigability unit endorsed the 1980 finding that the Salcha is navigable to the mouth of Paldo Creek and non-navigable beyond that point, but the BLM has not yet issued an appealable decision incorporating that recommendation.[14]

Since 1983, the BLM's position has been that the Salcha River upstream of the mouth of Paldo Creek is non-navigable. Between 1983 and 1986, the BLM included the bed in six conveyances (tentative approvals with appealable decisions) to the State of Alaska along the uppermost reaches of the river, specifically, in Tps. 1-3 N., R. 16 E., FM and T. 3 N., Rs. 17-19 E., FM.[15] The BLM's determinations that these reaches were not navigable was not appealed.

Other Federal Navigability Determinations

Neither the U.S. Coast Guard (USCG) nor the U.S. Army Corps of Engineers (COE) currently lists the Salcha River as navigable or non-navigable. The river is not among those on the COE's 1995 list of navigable waters. Nor does it appear on the USCG's 1998 inventory of navigable waters of Alaska.[16] It should be noted that these agencies apply different legal standards than those used by the BLM for title navigability determinations.

In a report prepared under contract for the Army Corps of Engineers, the Grumman Ecosystems Corporation stated that both the Coast Guard and the Corps have considered the navigability of the Salcha River. In 1970, following an investigation of the proposed Trans-Alaska Pipeline crossing of the river, the U.S. Coast Guard considered the Salcha River navigable at least to a point 13.8 miles upstream from the Tanana River. In the same year, the U.S. Army Corps of Engineers, Alaska District, considered it navigable at least to the mouth of Redmond Creek at mile 17.8. The Corps did not make a final determination, however.[17] What facts each agency considered to reach its conclusion are not available.

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[13] *Ibid.*

[14] Jules Tileston, Chief, Division of Resources, to State Director, June 23, 1980, F-028920 (2627), and Jerry B. Lewis, Chief, Survey Planning and Preparation and Navigability Section, to Chief, Branch of Survey Planning and Preparation, October 15, 2003, F-44053 (2620), state selection files, BLM records, Anchorage.

[15] Robert W. Faithful to Chief, Division of ANCSA and State Conveyances, February 17, 1983, F-79675, state selection files, BLM records, Anchorage. The Bureau incorporated that determination into decisions dated April 12, 1983, May 10, 1983, May 18, 1984, August 9, 1986, and September 11 and 12, 1986. See decisions in files F-79675, F-79676, F-79677, F-79680, F-79683, F-79686, state selection files, BLM records, Anchorage.

[16] See U.S. Army Corps of Engineers website (www.poa.usace.army.mil/reg), and U.S. Coast Guard, "Navigable Waters of the U.S. Within the Seventeenth Coast Guard District (State of Alaska)," revision date of August 13, 1998, in writer's files.

[17] Grumman Ecosystems Corporation, vol. 3, 4-323, 4-324. The corporation investigated the navigability of 27 Tanana River Basin streams for the U.S. Army Engineer District, Alaska.

In the same report, the Grumman Ecosystems Corporation recommended that the Salcha River be determined navigable from the Tanana River to the mouth of Lost Creek (mile 109).[18] The river appeared to be "boatable" to this point. This conclusion was reached after observing the river during an overflight, reviewing the available historical literature about boating activities on the river, and interviewing local residents about the extent of current boating on the river. In addition, the corporation cited historical evidence of commercial log rafting down the lower reaches of the river for the Fairbanks market.[19]

Salcha River -- Physical Characteristics

The Salcha River, the second largest tributary of the Tanana River, drains an area of approximately 2,170 square miles. The river, about 125 miles long, rises at an elevation of about 4,000 feet in the Tanana Hills dividing the Yukon and Tanana drainages and flows westerly and then southwesterly to the Tanana at its mile 259.5.[20] In its headwaters, the Salcha flows through canyons over its first thirty miles or so. It then continues a southwesterly course through a valley averaging twenty-five miles in width but broadening out in the river's last forty miles.

The Salcha's principal tributaries are the North Fork (Mile 73) and the South Fork (Mile 70). The main stem of the river beyond the North Fork is sometimes called the Middle Fork. On a U.S. Geological Survey map dated 1906, it was named the East Fork.[21] Other important tributaries, significant in local mining history, are No Grub Creek (Mile 66) and Caribou Creek (Mile 63).

The Salcha River from its mouth to the North and South Forks ranges in width from 200 to 300 feet. Upstream to near Boulder Creek (mile 117), the river narrows to less than 200 feet. Beyond Boulder Creek, the stream is less than 80 feet in width. Below the North and South Forks, the river twists and turns more than above its forks, and gravel bars on the inside meanders appear to be more numerous and larger. Sand and gravel islands and side channels are also more numerous. Only two of these side channels, both downstream of the North Fork, are named: The Splits between the North and South Forks and Koepke Slu on the lower reaches of the river.[22] The existence of oxbow lakes adjacent to the river indicates that the lower half of the Salcha has changed its channel many times. Modern USGS maps show no waterfalls or rapids in the river.[23]

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[18] Orth, p. 597, describes Lost Creek as a tributary of Serpentine Creek, which in turn empties into the Salcha River. Local residents consistently refer to the creek emptying into the Salcha River as Lost Creek and not Serpentine Creek. Consistent with local usage, this report will also refer to the creek as Lost Creek.

[19] Grumman Ecosystems Corporation, vol. 1, 1-4, vol. 3, 4-323, 324.

[20] Grumman Ecosystems Corporation, vol. 3, 4-321.

[21] See plate 1, "Reconnaissance Map of Yukon-Tanana Region, Alaska, Circle Quadrangle," 1906 (scale 1:250,000) in Prindle, Bulletin 295, 1906.

[22] Koepke Slu probably was named after F. T. Koepke, a trapper operating in the Salcha River area in the 1940's. According to Orth, The Splits, reported in 1904, referred to the three-mile-reach between the North and South Forks. Orth, 908.

[23] See U.S. Geological Survey maps Charley River, 1956, limited revisions 1982, and Circle, 1955, limited revisions 1982. Boulder Creek, located in T. 1 N., R. 16 E., FM, is shown on the USGS Big Delta D-2 quadrangle (1958).

The Salcha River is fast and clear. The water is at times "slightly stained with tannin, except during periods of heavy runoff."[24] From Flat Creek (Mile 39) to the Tanana River, the Salcha falls an average of 7 to 8 feet per mile (fpm). Between Flat Creek and Lost Creek (Mile 109), the river falls an average of 12.9 fpm. Pools and riffles ("long shallow runs and exposed gravel bars" as one biologist described it) are typical in this reach.[25] From the headwaters to Lost Creek the river's average fall is 37.5 fpm.[26]

Like other runoff streams of the Tanana drainage, water levels rise and fall quickly after the spring breakup and late summer rainfalls. The U.S. Geological Survey has maintained a gaging station on the river two miles from its mouth since 1948. The agency has published monthly stream flow statistics for the period October 1948 to September 2002. During the summer, the river discharges on average 4,000 cubic feet per second (cfs). Summer flows can vary from a low of 2,000 cfs to 12,000 cfs, however. As a result of prolonged periods of rain, summer flows may, in one day, increase as much as 8,000 cfs.[27] Mean monthly flows rise from a 399 cfs in April to 4,276 cfs in May during the spring breakup. For the remainder of the summer season, stream flows tend to decline through June and July. In August there is an increase, probably from rainfall, to 3,075 cfs. In September the mean flow is 2,453 cfs; in October 1,081; and finally with the onset of winter, 504 cfs.[28]

There are no known manmade obstructions to navigation on the lower reaches of the Salcha River. The Richardson Highway crosses the river over a bridge at approximately two miles above its mouth, and the Trans-Alaska Pipeline crosses roughly twelve miles upstream (above Salcha Bluff).[29]

The river was in its natural and ordinary condition at the time of statehood. One of ten rivers classified by the U.S. Fish and Wildlife Service in 1971 as a scenic, recreational, fishing and hunting river, the Salcha was "considered for potential designation as wild and scenic, pursuant to P.O. 90-542, section 5(d)."[30] Although the river remains pristine, a dam site was once proposed at river mile 63, where the valley is about 1,500 feet wide. A dam would have raised the water level 203 feet, forming a reservoir about thirteen miles long and essentially obliterating some mining claims. A forty-five-mile-long road from the Richardson Highway would have been needed to be built to the area since the only access was by a winter sled road serving a gold dredge operation and an airstrip.[31]

The river usually breaks up in May and freezes over in October. A state biologist left this account of the breakup of 1976: "The ice in the vicinity of the Richardson Highway Bridge first showed some velocity leads on April 20, 1976. Between April 30 and May 2 the ice in the lower 9 miles of the main channel broke up and moved out of the river. During an aerial survey on

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[24] State of Alaska, Department of Fish and Game Sport Fish website.
[25] Clark, 2.
[26] Grumman Ecosystems Corporation, vol. 3, 4-325, 326.
[27] Grumman Ecosystems Corporation, vol. 1, 4-321.
[28] Dinneford 1977, 17-18; see also USGS's "Surface Water Data for Alaska: Monthly Streamflow Statistics" at this website: nwis.waterdata.usgs.gov/ak/nwis/monthly.
[29] USGS Big Delta B-6 quadrangle map, 1949, photorevised 1979.
[30] Grumman Ecosystems Corporation, vol. 1, 3-58, 61.
[31] Grumman Ecosystems Corporation, vol. 1, 2-146, 147.

May 5, shore-fast ice was present from the mouth to the Butte Creek confluence, where a large ice jam was located, but the river was still frozen above the ice jam. On May 10, the Salcha River was found to be free of ice during an aerial survey, although sloughs and side channels were still ice covered at this time."[32]

Only two firsthand descriptions of the river are available. In July 1974 representatives of the Grumman Ecosystems Corporation flew over the river in a helicopter and subsequently prepared a report on the river's physical character, dividing the river into three reaches: mouth to Flat Creek (Mile 39); Flat Creek to Lost Creek (Mile 109); and Lost Creek to headwaters. In June 1983 Alaska Department of Fish and Game personnel researching the grayling fishery floated down the river from Dan Creek to its mouth. The report writer subsequently divided the river into four reaches: Mouth to Butte Creek (mile 50); Butte Creek to North Fork Salcha River (mile 72); North Fork Salcha RiveRiver to Paldo Creek (Mile 107); and Paldo Creek to Dan Creek (mile 112). Following is a description of these four reaches.

Mouth to Butte Creek (Miles 0 to 50)

This reach of the river has been described as "very swift and forceful."[33] Grumman Ecosystems Corporation personnel described the lower reaches of the river (Mouth to Flat Creek) as generally 100 to 150 feet wide in the main channel. Where the flow was constricted by gravel bars, the channel was 40 to 50 feet wide.[34] Holmes in June 1983 measured the stream velocity at approximately 2.5 feet per second (fps). In July 1974 Grumman Ecosystems Corporation employees recorded a velocity of 3 fps below the Richardson Highway bridge (mile 3) and 5 fps "along the upper end of Salcha Bluff" (approx. mile 10). Just upstream of the mouth of Flat Creek (Mile 39) the velocity was 5 fps; and just upstream of Caribou Creek (mile 62.5), 3 fps. They reported that the flow in pools was about 2 to 3 fps; and in the riffle areas, 4 to 5 fps. When these measurements were made, water levels were at a "moderate stage."[35] The river was eroding the banks, and sweepers were observed at several places. No snags, blockages, or logjams in the channel were observed. As is the case with most of the river, the bottom consists of sand and gravel.

The river here is consistently deep. Near its mouth, where the river is approximately 100 feet wide, the river is reportedly 7 feet deep. Farther upriver depths range from a few inches in some riffles to eight feet or more in pools.[36] In July 1974 Grumman Ecosystems Corporation's field men reported, "The river was observed to be quite deep throughout; even riffles were 2 to 3 feet deep." In general, stream depths in this reach ranged from 5 to 8 feet in pools and 1 to 2 feet at riffles. They took depth measurements at four locations: 7 feet below the Richardson Highway crossing near the mouth and 5 feet along the upper end of Salcha Bluff mile (probably near mile 10). (The latter figure is an estimate. The current was too strong along Salcha Bluff for the men

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[32] Dinneford 1977, 24-25.
[33] Holmes 1984, 37. The gradient in this reach averages 6 fpm.
[34] Grumman Ecosystems Corporation, vol. 1, p. 4-338.
[35] Grumman Ecosystems Corporation, vol. 1, 4-326, 4-327, and 4-337.
[36] Grumman Ecosystems Corporation, vol. 1, 4-321; Edgar A. Earnhart, Navigable Waters Specialist, to File F-88697 (2627), October 7, 1993, state selection files, BLM records, Anchorage.

to wade into the river to take measurements.) At a point just above Flat Creek (Mile 39), they determined that the river was four feet deep in mid stream.[37]

The *Fairbanks Daily News-Miner* frequently reported on boat accidents on this stretch of the river. Oftentimes, the accident was the result of loss of control over the boat. For example, one day in late July 1952 three military men, taking soundings in the Salcha River near its mouth, lost control of their aluminum boat when the outboard motor broke a shear pin. Without power, the boat was quickly swept downriver struck an underwater snag with such force that the three men were thrown out of the boat. They were swept onto a sandbar. Unable to cross the swift and deep river, the men were rescued by helicopter.[38]

Sometimes people hit a snag or sweepers or ran up onto a logjam. Take, for example, the case of Tom Murphy, reported in 1932. Murphy, 75, was a miner and trapper at Caribou Creek. It was Murphy's custom each spring to travel to Fairbanks for supplies and to sell his furs. In the spring of 1932, when he did not appear in Fairbanks, friends grew worried and proposed to send a boat up the river to search for the missing man. Instead, several local pilots flew to his cabin. Joe Crosson, a local pilot, saw no one when he flew over Murphy's cabin and, because of shallow water, he could not land on the river. Later, another pilot saw the old-timer at the cabin and landed the plane on a small field about six miles downriver and walked to the cabin. He found that Murphy was ill. The old-timer hadn't seen anyone since March 27. "I started down the river June 1,' said Murphy, but the "river was very high and 30 miles down the raft capsized. My dog drowned and my furs were lost. I managed to reach shore with what little food there was and made by way back to camp." Murphy was unable to walk out for help because he had frozen his foot in the spring and the rafting accident had irritated the injured foot.[39]

Butte Creek to North Fork Salcha River (Miles 50 to 72)

According to the Grumman Ecosystems Corporation, this reach also has a large volume of flow, confined to "a wide, well-defined channel." The river in this reach is faster and shallower than the section below Butte Creek. Pools and riffles appear to predominate. Generally speaking, stream depths in this reach (Flat Creek to Lost Creek (mile 110)) ranged from 5 to 8 feet in pools and 1 to 2 feet at riffles. At a point just above Caribou Creek (mile 62.5), the river was five feet deep "in the thalweg." Holmes estimated the river's width at approximately 225 feet, and averaged 7 feet in depth.[40]

The current here is swift as well. Grumman Ecosystems Corporation reported that just upstream of Caribou Creek (mile 62.5), the velocity was 3 fps. In pools the velocity was about 2 to 3 fps; in the riffle areas, 4 to 5 fps. These observations were made when water levels were at a "moderate stage."[41]

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[37] Grumman Ecosystems Corporation, vol. 1, 4-327 and 4-337.
[38] Fairbanks Daily News-Miner (FDNM), August 1, 1952, 1.
[39] FDNM, July 26, 1932, 8.
[40] Grumman Ecosystems Corporation, vol. 1, 4-327 and 4-337; Holmes 1984, 37.
[41] Grumman Ecosystems Corporation, vol. 1, 4-326, 4-327, and 4-337. According to Holmes, the average velocity was 2.9 fps. The gradient is 9.7 fpm. Holmes 1984, 37.

North Fork Salcha River to Paldo Creek (Miles 72 to 107)

Following a float trip in June 1983, Holmes described this reach as averaging 110 feet in width and approximately four feet in depth. The stream gradient is approximately 20 fpm. The average velocity in June 1983 was 3 fps.[42]

Paldo Creek to Dan Creek (Miles 107 to 112)

Holmes described this reach as averaging 60 feet in width, the channel containing "numerous protruding boulders," and the water "quite shallow" (approximately 1½ feet deep). In June 1983, the average velocity was 3.1 fps. The gradient is also steeper (22.2 fpm). Grumman Ecosystem Corporation made similar observations for the river upstream of Lost Creek (Mile 110). The river falls at a higher rate; the channel contains "numerous large rocks" and riffles; and the river was "markedly shallow: about 1 foot throughout, with many large rocks."[43]

Evidence of Use—Mouth of Salcha River to No Grub Creek

Early Settlement/Trading

The Salcha River band of Northern Athapaskans once occupied a village at the mouth of the Salcha River, known as Salchaket or "mouth of the Salcha." In 1898 A. H. Brooks, a geologist with the USGS, first reported the name Salchaket after encountering the Salcha people during a survey of the Tanana River basin. The name Salcha River was then noted on a published map.[44] (Locally, the river was called the Salchaket into the early 1940's.) There are no other known historic Native settlements located elsewhere along the Salcha River.

The Indians no doubt hunted and fished in the Salcha River country, but beyond a few generalities little is known about these activities. The Indians lived a semi-nomadic subsistence lifestyle of hunting, fishing and snaring, migrating seasonally either overland along trails or on rivers in birch bark canoes. They hunted moose, caribou, sheep and black bear, caught king salmon in special traps set across the Salcha, fished for salmon, whitefish, grayling, lingcod and pike, and snared small game like snowshoe hares, ptarmigan, ground squirrels and beaver. Before the establishment of a trading post at the mouth of Salcha River, the Indians traded at various posts on the Yukon River.

Following the Fairbanks gold rush of 1902-03 and the subsequent construction of the Valdez-Fairbanks trail (now Richardson Highway), large numbers of prospectors began to explore the Upper Tanana country. They soon discovered commercial quantities of gold on several tributaries of the Salcha River. The gold mines contributed to the growth of a small white community at Salchaket or Salcha. To supply these prospectors, provide services to travelers on the trail, and to trade with the local Indians, traders built posts at or near the villages. By 1904

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[42] Holmes 1984, 37.

[43] Holmes 1984, 34; Grumman Ecosystems Corporation, vol. 1, 4-327 and 4-337. Grumman Ecosystems Corporation also cited the figure of 60 feet as the average width of the river (though for Lost Creek upstream). See p. 4-327.

[44] Andrews, 1, 20, 21.

Munson's roadhouse and trading post was in operation. William F. Munson, the proprietor, died from tuberculosis in 1913.[45] He was succeeded by his wife and, later, by George Hillar. In the early 1900s, the U.S. Army Signal Corps also established a telegraph station three miles up the Salcha. (It was abandoned in the early 1920's.) By 1909, Salchaket had a ferry, a post office, a store, and a roadhouse with accommodations.[46]

Between 1900 and the Second World War, probably fewer than fifty people lived at Salchaket. After the gold rush period, the Indian population steadily declined. In 1910 the Episcopalians established a mission at Salchaket (Saint Luke's), but abandoned it after ten years of operation.[47] Comprised of about thirty individuals in 1900, the Salcha tribe had almost disappeared by 1932.[48]

For many years, the federal government operated a ferry across the Salcha River at Salchaket on the Valdez-Fairbanks trail (Richardson Highway). During the winter of 1924-25 the Alaska Road Commission (ARC), the federal agency responsible for road building in the territory, built a steel bridge across the river about three miles from its mouth. Other than the Tanana River, the Salcha River was the last major river on the route to be bridged. In the spring breakup of 1932, ice took out about 180 feet of the north approach. The ARC quickly repaired the damage.[49]

Prospecting and Mining Activity

Historically, the Salcha River has been prospected for placer gold since the Klondike Gold Rush. Pay was found on many tributaries of the Salcha River, but heavy mining machinery was introduced only on Caribou Creek. Significant mining operations also occurred on No Grub Creek, located approximately three miles upstream from Caribou Creek. The remainder of the creeks were pick-and-shovel operations. Travel to mining claims was by foot, boat, dog team, tractor, and airplane. Both Caribou Creek and No Grub Creek, which local residents usually described as being located in the "upper Salchaket" country, were accessible by boat.

As early as 1898 prospectors from the Circle mining district had reached the headwaters of the Salcha. Guided by a Birch Creek Indian, prospectors followed a trail up the South Fork of Birch Creek to the headwaters of the Salcha River and then continued down that river to the Tanana.[50] It is not known whether these prospectors used boats to descend the river. The available evidence suggests that this was a winter route. Military explorers in 1898 recorded the death of seven Tanana Indians two winters earlier while attempting to reach the Circle district from the head of the Salcha River. In the winter of 1897 five Indians nearly perished on the same trail.[51]

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[45] *Alaska Citizen*, August 4, 1913, 4.
[46] Ellsworth, Bulletin No. 442-F, 282; Andrews, 28.
[47] See the website www.northstar.k12.us/schools/sal/museum) for a local history of Salcha entitled "Salcha Elementary Muesum."
[48] Orth, 95, 665; and Andrews, 4, 5, 12, 13, 19, 23, 24, 28, 29, 33, 54, 56-61.
[49] FDNM, March 3, 1925, 4; March 24, 1925, 1; April 4, 1925, 4; May 2, 1932, 8; May 6, 1932, 1; May 12, 1932, 4; and May 28, 1932, 8.
[50] Andrews, 23.
[51] U.S., Senate, *Compilation of Narratives of Explorations in Alaska,* 694. Prospectors also used a trail between the Circle district and the Goodpaster River.

In the early years, most prospectors in the Salcha River country may have focused on those streams in the vicinity of a small dome called The Butte, an important local landmark. Tributaries of the upper North Fork Salcha River as well as Butte Creek (mile 52), a tributary of the Salcha River, all prospected in the early 1900's, head in The Butte. In 1905 the discovery of gold on Butte Creek and Caribou Creek (mile 62.5) sparked a small gold rush of 100 to 200 men to the area.[52]

Most men soon left for other gold mining camps throughout Alaska, but a few remained behind to operate drift mines on Caribou and Butte Creeks and to explore other tributaries of the Salcha River. Over the next decade and a half, they found pay on Pasco Creek, located several miles upstream of Caribou Creek, and on Redmond Creek, Ninetyeight Creek, and Twenty-Mile Creek, all located downriver from Caribou Creek. Prospectors also worked in the headwaters of the North Fork of the Salcha River (mile 73) and, for a short time, on Lost Creek (mile 110). The discovery of gold on Redmond Creek (c. 1906), No Grub Creek (1907?), Bullfrog Creek (1911), Twentymile Creek (c. 1913-1914), and Joy Creek (c. 1919), a tributary of the South Fork of the Salcha River, resulted in small, short-lived stampedes during the winter months to those creeks.[53] However, only Caribou Creek and, to a less extent, Butte Creek and No Grub Creek, sustained mining operations for an extended period.

Before the First World War, the Salcha-Tenderfoot district was most productive in 1906 and 1907. (Tenderfoot Creek is a nearby tributary of the Tanana River.) The U.S. Geological Survey recorded that the district produced $100,000 in gold in 1905; $375,000 in both 1906 and 1907; and $150,000 in 1908. Production continued to decline. From 1909 to 1914 the district yielded $100,000 in gold annually. This declined to $95,000 in 1915; $80,000 in 1916; and $25,000 in 1917. Only $6,000 in gold was produced in 1918.[54]

Caribou Creek, Butte Creek, and No Grub were accessible by trail during the winter and by boat during the summer. Traveling through the area on horseback, L. M. Prindle, a government geologist, reported that miners transported supplies from Salchaket fifty miles to Butte and Caribou Creeks by poling boat, or, at low water, by horses towing boats most of the way. Transportation was more difficult at high water when horses could not be used. "There are numerous riffles easily fordable by horses at ordinary stages of the water, and the long gravel bars at low water are often utilized for towing boat loads of supplies by horses as far as Butte and Caribou creeks," he reported.[55] In the fall of 1907, miners with nearly a dozen poling boats, all loaded with their outfits, were reported at Munsons, waiting for lower water so that they could get a "poling bottom." Freighters subsequently delivered a dozen outfits to the mouth of No

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[52] Gus Hegg (or Haig) was credited with the discovery of "first pay" on Caribou Creek. FDNM, July 20, 1918, 4. It is interesting to note that by 1905 the USGS had recorded the names of the small headwater tributaries of Gold Creek, a tributary of the North Fork. Most other creeks in the Salcha River country had not yet been named. See Plate 1, "Reconnaissance Map of Yukon-Tanana Region, Alaska, Circle Quadrangle," 1906, in Prindle, Bulletin 295.

[53] The location of Twentymile Creek is unknown. Possibly it is the creek named Twentyfive Mile Creek on the USGS maps.

[54] G. C. Martin 1920, 43.

[55] Prindle, Bulletin No. 295, 11. See also Prindle, Bulletin No. 284, 123. In 1910, the U.S. Geological Survey operated a gauging station in the Salcha River at Salchaket. See Ellsworth, Bulletin No. 480-G, 193.

Grub Creek.[56] In 1908, a miner with claims on both Caribou Creek and No Grub Creek, had "a complete outfit and considerable grub" delivered at Salcha by the steamer *White Seal*, operating out of Fairbanks. He arranged to have the freight delivered to his ground by poling boat.[57]

By 1908 miners in the Salcha River country were appealing to the Alaska Road Commission (ARC), the recently established federal agency responsible for road, trail, and bridge construction in Alaska, to construct a winter trail or road to Caribou and Butte Creeks. The miners were confident that the creeks were rich in gold. To get at the gold, however, they needed to introduce heavy machinery. Transportation costs were too high to justify the expense, however. As one newspaper commented:

> The great cost of getting supplies to the district in both winter and summer is holding the camp back more than anything else. It is almost as much as a man's life is worth to descend the Salchaket in a poling boat at any time of the year, and it is more dangerous now owing to high water. A good many poling boats have been swamped and the outfits lost in ascending the twisting channels and the swiftly flowing current. In the winter time the conditions are a little better. The warm springs or chemical action of the water eats the ice away so that river travel is impossible, save for the very lightest loads.[58]

In the spring of 1908 the ARC sent John C. Wood to investigate conditions in the Salcha River country and to determine the feasibility of trail to Caribou Creek from Salchaket. Wood reported favorably on the proposed project, and the ARC directed him to start work on the trail that fall. As Wood described the project to a newspaper reporter, he and a party of ten men were to cut "a roadway twelve feet wide, bridging all streams necessary to make a good winter trail, excepting the Salchaket river." He estimated three months to complete the project.[59] Reviewing developments in the area, another newspaper commented upon the importance of the ARC's project: "It will prove of big value to the men opening up the upper Salchaket as the river trail is always treacherous, and the country in the past has been almost impassable for the lightest freighting outfits. In fact the upper country was almost completely shut off as the river is swift and deep, making it a difficult undertaking to move freight up to it in poling boats."[60]

In December 1908, Wood returned to Fairbanks with his crew, having completing work on a winter trail from Salchaket to Caribou Creek, forty-five miles in distance. By one estimate, the new trail cut twenty miles off the old route. The project, which included cutting brush, bridging creeks, grading, and erecting mileposts, cost a little more than $6,000. One of the bridges, crossing a slough running into the river at the mouth of Butte Creek, was sixty-five feet long. Miners will benefit greatly from the trail, he claimed. Freighters would no longer have to travel over the frozen river which was subject to overflows. In fact, as he was returning to Fairbanks,

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[56] *Tanana Tribune*, September 21, 1907, 4; and September 28, 1907, 1. The newspaper identified "various parties" as having landed the outfits at No Grub Creek. Freighters are known to have operated on the Salcha River, and it is assumed that these "various parties" were freighters.
[57] *Fairbanks Daily Times*, August 18, 1908, 2.
[58] FDNM, June 9, 1908, 4.
[59] *Fairbanks Daily Times*, September 2, 1908, 4.
[60] *Fairbanks Daily News*, September 8, 1908, 2.

Wood passed Al Hilty, a well known miner, en route to his Caribou Creek claim with a four-horse team and about five tons of freight.[61] The trail was suitable for dog teams as well.

Roadhouses and shelter tents were quickly established on the new winter trail. The *Fairbanks Daily Times* published a table of distances on the trail: "Munson's" to Redmond [Creek], 14 miles, roadhouse and stable; Redmond to Nelson, 8 miles, roadhouse and stable; Nelson to Larson's, 8 miles, tent accommodations; Larson's to Butte [Creek], 10 miles, tent accommodations; Butte to mouth of Caribou Creek, 6 miles, tent accommodations; and Caribou Creek mouth to Hilty's place, 4 miles, tent accommodations.[62] The roadhouses probably did not survive more than a year or two. Travel on the winter trail declined as many men left the area.

After the First World War, miners' interest in Caribou Creek revived. Over the years, longtime Salcha River miner Carl Brandstetter and his wife had secured ownership of most mining claims on the creek. In 1923, with the backing of such Seattle capitalists as Paul Denhart, James Stewart, a former miner in the Fairbanks area, obtained an option on the property and developed plans to mine the property, possibly with a dredge. In the spring, he used a five-ton Holt Caterpillar tractor to move 150 tons of machinery, including a twenty-ton Bucyrus Drag Line Scraper, and equipment and supplies on sleighs over the Salcha winter sled road. Stewart sought the assistance of the ARC in constructing bridges on the road. The ARC refused, but it did contribute the use of a tractor. During the summer the tractor was used to move cord wood on sleighs across "moss roads or gravel on the creek beds without difficulty." The Salcha Mining Company also built an airplane landing field on a sandbar about a mile from the workings. In July 1923 Carl Ben Eielson flew to the mine and may have made the first landing in the Salcha River country. The company also had the use of a boat for travel between Salchaket and Caribou Creek. All machinery and supplies were transported over snow, however.[63]

The Salcha Mining Company worked on Caribou Creek for two years. In 1923 the mine employed a crew of eighteen men; the following year, about fifteen men. In 1924 the company used the tractor at least twice to move supplies and machinery on sleds to the mine. In March the tractor required four days to reach Fairbanks and seven days to return to Caribou Creek with about ten tons of freight. In addition, at least three men were hired in mid May to pole two boats loaded with supplies to the mine. Mail may also have been delivered to the mine by boat. In a newspaper account of a Fourth of July celebration at the mine, Gustave Hegg, a well known miner (and the reputed discoverer of pay on Caribou Creek), was identified as the "captain of the commodious mail launch."[64] One day in mid August 1926, pilot Noel Wien with Norman

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[61] *Fairbanks Daily Times*, December 8, 1908, 6.

[62] *Fairbanks Daily Times*, December 2, 1908, 2. Jack Connolly, who provided this table, later revised it somewhat: "There are three roadhouses between Munson's and Caribou. Fourteen miles from Munson's is Redmond, where stable accommodations, lodgings and meals are as good as can be found in the country. At Nelson's, six miles further, there is a roadhouse, but it is off the main road about 200 yards. About seven miles further is Larson's. He has a cabin for travelers, and good stable accommodations. From this point it is 22 miles to Caribou. A roadhouse will likely be opened at Butte, which is ten miles this side of Caribou." *Fairbanks Daily Times*, December 23, 1908, 5.

[63] A. G. Cox to Samson Hardware Company, April 27, 1923, file 13/159-110, Box 65432, Records of the Alaska Road Commission, Record Group 30, Federal Record Center (microfiche in writer's files); FDNM, February 28, 1923, 4; April 5, 1923, 4; May 2, 1923, 4; July 17, 1923, 4; September 20, 1923, 4; September 25, 1923, 4.

[64] FDNM, July 11, 1924, 8.

Wimmler of the USGS as a passenger landed at the company's new landing field. In his report on the Caribou Creek mine, Wimmler wrote, "Summer access is difficult as there is no regular trail, although travel can be accomplished by canoe or rowboat via the river."[65] At the end of the season, Paul Denhart, a company official, noted that "Caribou creek is 50 miles from Munson's on the winter trail, and 75 miles by river."[66]

Denhart had predicted that the mine would continue to operate, but after 1924 the Salcha Mining Company ceased operations on Caribou Creek. Large-scale mining operations would not resume on the creek until the 1930s. Nevertheless, in 1924, the company applied for patents to three mining claims. In the early 1930s patents to the claims were issued.[67] (These may be the only patented mining claims in the Salcha River country.) In 1925 the Goldfield American Development Company, a British firm, prospected Caribou Creek as well as Butte Creek and Salcha River with two Keystone drills. Observers reported that the company planned to install a dredge on Caribou Creek and had had ten men construct 12 or 14 miles of wagon road from the Richardson Highway. By the following spring, however, the company had quit the country.[68]

During the 1920s and early 1930s, prospectors from the local area and Fairbanks explored the Salcha River and its tributaries for placer gold. Some made notable finds, leading to small gold rushes. In early 1924 the Fairbanks newspaper reported a gold strike on the main Salcha River. William Gorbracht, a local music teacher, and a man named Kolhaus were identified as the discoverers. The precise location of the discovery is not known. The newspaper reported that the camp was about fifty miles from Munson's roadhouse. Another article referred to the Salcha Flats. In any case, several dozen men were drawn to the strike in the spring of 1924. Reportedly, 47 miles of the river was staked--17 miles above Discovery and 20 miles below. In winter the prospectors used dogs and sleds to transport their equipment and supplies. In summer they used boats. According to the Fairbanks newspaper, on October 1 a large party of prospectors boating their supplies up the river were forced to give up the attempt about 30 miles from Munson's roadhouse when the river froze. Some men built sleds and relayed their cargo to Butte Creek and Caribou Creek. In addition, several cut a three-mile trail to Pasco Creek, located about five miles upstream of Caribou Creek.[69]

The rush was short-lived. After spending the winter driving shafts 50 to 60 feet into the riverbed and finding no pay, most prospectors left. In 1925 Norman Wimmler reported less than a dozen prospectors in the entire Salcha River country. Some were at work on George Creek, Bullfrog Creek, Butte Creek, Caribou Creek, Pasco, and No Grub Creek. William Gorbracht and his partner returned to continue prospecting. In 1926 Gorbracht returned alone in a poling boat.

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[65] Norman Wimmler, "Placer Mining in Alaska in 1925," 73.
[66] FDNM, March 24, 1924, 1; March 28, 1924, 4; April 7, 1924, 1; April 10, 1924, 4; April 14, 1924, 4; May 20, 1924, 4; August 16, 1924, 1; October 4, 1924, 5.
[67] FDNM, June 6, 1928, 6. In 1927 Irving McK. Reed, a well known deputy mineral surveyor, spent a month surveying the company's holdings in 1927. His records are at the archives of the University of Alaska, Fairbanks. FDNM, March 15, 1927, 4.
[68] FDNM, October 28, 1924, 1 and June 23, 1925, 1; and Norman Wimmler, "Placer Mining in Alaska in 1925," 73-74.
[69] FDNM, March 20, 1924, 1; August 29, 1924, 1; November 14, 1924, 1; and December 19, 1924,1.

And John May and partners were prospecting on Goose Creek, which empties into the Salcha River above Pasco Creek.[70]

In the late 1920s and early 1930s, No Grub Creek also was actively mined. Little is known about its operations, however. Heinie Karstens (or Carstens), Ed Kraiger (or Krieger), Archie McTigert (McTaggert), Carl Westberg, Joe Crosson, Ed Young, C. F. Shield were associated with the mine at various times. Many of these men were Fairbanks residents. Joe Crosson and Ed Young were well known pilots. According to the Fairbanks newspaper, the men intended to install a hydraulic mining plant on the creek. As early as 1928 Karstens had constructed a sawmill on the creek, explaining that it was too expensive to transport lumber to the mine. He used a tractor in connection with logging operations. In the winter of 1930-31, Kraiger and Westberg announced plans to install a hydraulic plant in the summer. They planned to survey a five-mile-long ditch in the spring and to take a tractor there in a few months.[71]

The No Grub Creek mine was accessible by tractor trail, airplane, and boat. Karstens described the location of the creek, on the right limit of Salcha River, as approximately 93 miles from Fairbanks by winter road and 115 miles by waterway.[72] In the winter of 1930-31 Fairbanks pilots Ralph Wien, Fred Moller, and S. E. Robbins flew freight to the mine, ranging from 400 to 500 pounds on each flight.[73] In the follow winter Kraiger hauled supplies to the creek by tractor. He planned to hire a crew to start building a four-mile-long ditch from Pasco Creek and to start hydraulicking in the spring of 1933. He clearly did not succeed in implementing these plans. In December 1933 the Fairbanks newspaper reported that he had completed construction of a two-mile-long ditch and had built a sawmill which had produced about 20,000 feet of lumber. At the time, he was moving twenty tons of supplies with a tractor from Fairbanks to Salchaket, 40 miles, and from Salchaket to No Grub Creek, 60 miles.[74] The last known reference in the Fairbanks newspaper to Kraiger on the Salcha River appeared in a fall issue in 1940. Kraiger, Lou Joy, and Al Slither, spent a successful week hunting moose on the Salcha River. According to the article, the three men took a launch as far upriver as No Grub Creek where they visited the C. F. Shield placer mine.[75]

Kraiger had claims on most of No Grub Creek. Whereas earlier miners drift mined the creek, Kraiger operated a hydraulic plant. In 1938, Charles F. Shield, who took a lease and option on Kraiger's property, moved his hydraulic plant on Palmer Creek, a tributary of the Chena River, to the creek. That spring he transported supplies, equipment, and diesel fuel by tractor from Salcha to No Grub Creek. When his tractor went through the ice at the Butte Creek crossing of the Salcha, a tractor from the Caribou Creek mine was used to pull it out. By the fall of 1939, he had three tractors and a slackline working on the creek. In 1938 and 1939 he reportedly produced $40,000 and $42,000, respectively. In 1940, he employed eleven men at the mine. At

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[70] FDNM, January 16, 1925, 4; September 19, 1925, 2; July 27, 1926, 1; August 19, 1926, 1; and Norman Wimmler, "Placer Mining in Alaska in 1925," 74.
[71] FDNM, June 28, 1928, 5 and December 31, 1931, 8.
[72] FDNM, June 28, 1928, 5.
[73] FDNM, January 18, 1930, 3; January 7, 1931, 5; January 8, 1931, 8; and December 31, 1931, 8.
[74] FDNM, February 11, 1933, 4 and December 28, 1933, 4.
[75] FDNM, October 3, 1940, 1.

the end of the season, as was customary, they returned to Fairbanks by airplane.[76] This may have been the last year that the mine operated. The available records do not contain references to later mining operations.

Before the Second World War, the most important development in the Salcha River country was the introduction of a dredge on Caribou Creek. Mortimer I. Stevens of Fairbanks played an important role in this development. During the 1930's, he prospected on Caribou Creek and, as he informed the Fairbanks Chamber of Commerce in 1936, worked on a deal involving $250,000 to $300,000 for a dredge on the creek. In the following spring, he announced that the Caribou Dredging Company of San Francisco and Nevada had contracted with the Walter W. Johnson Dredging Company of San Francisco to build a dredge in San Francisco and to ship it to Caribou Creek in the winter months. The dredge would be the steel pontoon-type, diesel-powered, with buckets of 6½ cubic feet capacity. It would handle 50,000 cubic yards per month. Stevens had leased nine miles of ground on the creek to the corporation. He was also attempting to interest several other companies in his other properties, including nine miles of ground on Butte Creek and a ten-mile-long area on Salcha River.[77]

Nearly five years would pass after Stevens's announcement before the dredge was installed on Caribou Creek. Why it took so long is not entirely clear from the available records. Several factors probably were behind the delay. Miners required time to drilled test holes on the creek in order to locate the extent of the paystreak. The corporation negotiated with the ARC for improvements to the Salcha-Caribou Creek road. The dredge manufacturer experienced difficulty in obtain steel from the East manufacturers following the outbreak of the war in Europe.

The mining company relied upon small airplanes to transport employee and small quantities of freight between Fairbanks and Caribou Creek. Small boats may also have been used to some extent on Salcha River. In the spring of 1938, for example, Stevens had a twenty-six-foot boat capable of carrying a ton of freight built for him in Fairbanks.[78]

For the transportation of heavy freight, the miners relied upon the winter road from the Salcha on the Richardson Highway to Caribou Creek. Both miners and the ARC spent funds in improving this trail. In the spring of 1937, Mike Erceg, a well known driller, and his crew made some improvements to the winter road when, guided by local trapper George Bishop, they took a tractor, three sleds loaded with a placer drill outfit, and a wanigan over it to Caribou Creek. In order to reach the creek, they had to "buck" three to seven feet of snow "all the way," build three bridges, eighteen culverts, and "make corduroy crossings over five 'warm' springs." A 110-foot-long "pontoon type bridge" was also constructed at Ninetyeight Creek.[79]

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[76] FDNM, April 5, 1938, 8; January 25, 1939, 7; and September 21, 1940, 3; *Alaska Miner*, April 5, 1938, 6 and April 12, 1938, 7, October 18, 1938, II-15, September 12, 1939, II-1, October 8, 1940, II-1.

[77] FDNM, October 14, 1936, 1, 4 and April 3, 1937, 5. The nine miles of ground on Caribou Creek may have included holdings of the Salcha Mining Company and Barney Lashley. FDNM, July 27, 1937, 7.

[78] *Alaska Miner*, April 19, 1938, 9.

[79] FDNM, April 24, 1937, 6 and April 27, 1937, 5.

During the winters of 1938 and 1939, the ARC made improvements to the road to Caribou Creek and No Grub Creek. During the first winter, a five-man crew with a D6 tractor cleared the route, cut down banks, and put in a few bridges. Reporting on the work, the Fairbanks newspaper commented, "Many prospectors, miners, trappers and loggers will benefit by the improved trail. The creek camps on the route include 98 creek, Butte, Caribou, Bullfrog, No Grub, and there are a few people interested in the north fork of the Salcha."[80] The following winter, the ARC with the assistance of the General Transportation Company, which had the contract to transport the dredge material to Caribou Creek, worked on the 51-mile-long winter road to Caribou Creek. With two tractors pulling wanigans, the crews were to improve the winter road for truck traffic. The road crossed the Salcha River at five places: at Redmond, Ninetyeight, and Butte Creeks, besides two other places.[81]

In January 1941 the General Transportation Company began hauling dredge material to Caribou Creek. By the end of March, 650 tons of dredge and hardware and 350 tons of lumber and oil products, including 50,000 gallons of Diesel oil, had been delivered. Nine trucks and fifteen men were employed in the work.[82]

By this time, the Brinker-Johnson Company had acquired control of Caribou Creek's mining ground. N. D. Brinker (or Willis B. Brinker) was formerly with the Caribou Gold Mines Company. Walter W. Johnson headed the Walter W. Johnson Company, which manufactured many dredges for Alaska mines, including the one on Caribou Creek. With a loan from the Reconstruction Finance Corporation, the company was able to proceed with plans to develop the Caribou Creek property. Richard Plumb, a mining engineer, managed the dredge operations. In the summer of 1939 the dredge pit was completed. Buildings on skids were constructed. About sixty men were employed during the construction period.[83]

On June 15, 1941, the dredge began clawing into the earth. Richard Plumb, a mining engineer, supervised an operations crew of twenty men. With the United States' entry into the Second World War, the dredge ceased operations for the duration of the war. In 1946, the *Fairbanks Daily News-Miner* quoted Joe Nasenius, owner of the gold mine, as saying that the mine had operated until October 1942.[84]

After the war, from 1946 to 1952, the Brinker-Johnson Company continued to operate the dredge on Caribou Creek. Sixteen men were employed, working seventy hours a week. Production figures are available for 1946, 1948, and 1949. In 1946, the dredge operated until November 1, and recovered 3,914 ounces of gold and 460 ounces of silver. In 1948 the company produced 5,272 ounces of gold and 629 ounces of silver; in 1949, 8,747 ounces of gold and 1,110 ounces of silver. In 1951 the company completed repayment of the Reconstruction Finance Corporation

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[80] FDNM, January 25, 1939: 4.
[81] FDNM, December 27, 1939, 6, and January 6, 1940, 3.
[82] FDNM, March 31, 1941, 2.
[83] FDNM, November 13, 1939, 2; October 3, 1940, 1; and December 16, 1940, 1. Willis B. Brinker of San Francisco was mentioned in an FDNM article dated September 20, 1941, 5.
[84] FDNM, June 16, 1941, 8; and September 26, 1946, 3.

loan. The company finally shut down operations after the 1952 season. According to James A. Williams, a territorial mining engineer, the creek was nearly worked out.[85]

So far as is known, the dredge never resumed operation. In 1980 the BLM noted that mining operations continued along the upper Salcha, but it is doubtful that this included the dredge. According to a local history, a large dredge is still located in the Caribou Creek area.[86]

During its years of operation, the Caribou Creek mine was supplied primarily by trucks on the Salcha winter road. According to a territorial official in 1946, "The bulk of supplies, repair parts and fuel oil is hauled from Fairbanks via winter trail up the Salcha River for $25.00 per ton. Air freight from Fairbanks to Caribou Creek is 5 [cents] per [pound?]."[87] During the late 1930s and early 1940s, miners also relied upon airplanes for travel to and from Fairbanks. There is nothing in the historical record relating to the use of boats for travel to the mine. However, in 1993 a local resident Bill Sewell informed the BLM that during the 1950s and into the 1960s, tunnel boats were used to haul supplies to the mines around Caribou Creek. The boats were approximately thirty-two feet long, sixteen feet wide, and drew about two feet of water. They were powered by 160-horsepower diesel engines.[88]

Logging

The historical record shows that commercial logging has occurred in the Salcha River country for nearly 40 years--from the late 1900's to the early 1940's—to supply the Fairbanks market. The logs were cut along the Salcha River, rolled into the river, and then driven down the river to the Tanana River, where they were then moved to Fairbanks. The precise locations of the logging camps are not known. However, there are clear indications that they were on the lower reaches of the Salcha. The record also does not reveal whether boats were used on the Salcha River in connection with these activities.

Before the First World War, more than 2 million feet of lumber was felled in the Salcha River country. Not many years after its founding, Fairbanks was confronted by a shortage of timber for building and heat. The Chena River and nearby Tanana River forests could no longer meet the demand. Loggers thus moved into the Salcha River country where there were large stands of birch trees. By 1909, three outfits were logging along the Salcha. One logging camp was located about three miles above Munson's roadhouse; another at about river mile 10; and a third camp at about river mile 22. The last camp employed a crew of 20 men. By mid May the first camp had

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[85] Alfred L. Ransome, "The Mineral Industry of Alaska," p. 1307, in U.S., Bureau of Mines, *Minerals Yearbook 1946*; James A. Williams, Associate Mining Engineer, to Leo H. Saarela, Commissioner of Mines, November 27, 1951, MR 194-14; Alfred M. Ransome, "The Mineral Industry of Alaska," p. 1386, in *Minerals Yearbook 1948*; Alfred L. Ransome, *Minerals Yearbook 1949*, p. 1363; Alfred L. Ransome and William H. Kerns, "The Mineral Industry of Alaska," p. 1381, *Minerals Yearbook 1950*; Alfred L. Ransome and William H. Kerns, "The Mineral Industry of Alaska," p. 1402, *Minerals Yearbook 1951*; Alfred L. Ransome and William H. Kerns, "The Mineral Industry of Alaska," p. 87, in *Minerals Yearbook 1952: Area Reports*, Vol. III; and Alfred L. Ransome and Phil R. Holdsworth, "The Mineral Industry of Alaska," p. 93, *Minerals Yearbook 1953: Area Reports*, Vol. III.

[86] K. LeRoy Cook, Navigability report, February 1, 1980, file F-28920 (2627), BLM records. The local history is located on this website: (www.northstar.k12.ak.us/schools/sal/museum)

[87] Bruce Thomas, "Report of Mining Investigations September 1946," IR 195-46, p. 6.

[88] Personal communication, Bill Sewell to Edgar A. Earnhart, July 23, 1993. See memo, Edgar A. Earnhart, Navigable Waters Specialist, to file F-88697 (2627), October 7, 1993, BLM records.

logged more than a million feet of timber. The logs were driven down the Salcha River, Little Salchaket Slough, and finally to the Fairbanks slough about six miles below Munson's. Some 15,000 logs, equivalent to about 1.25 million feet of lumber, were sent from the Salcha River to two Fairbanks lumber companies that season.[89]

Little is known about subsequent logging operations up to the outbreak of the war. In August 1911, some 16,000 logs from the Salcha River had arrived at the Fairbanks mills. Not all of the log drives were successful. One year, when the Salcha river rose suddenly, the booms and deadmen failed, resulting in the loss of some 2 million feet of timber as the logs were swept into the Tanana River and carried downstream.[90]

Beginning in the late 1920's, Fairbanks experienced a decades-long building boom. Again, the Salcha forests were tapped to supply the market. The Independent Lumber Company of Fairbanks was the primary logger. Each year thousands of trees were felled, hauled to the river, and then driven down the river to the Tanana River. In mid July 1928, a crew of 19 men drove 12,000 logs from the river to Fairbanks. According to the Fairbanks newspaper, this was the biggest log drive in years. Logging operations intensified during the late 1930s. In 1936 the Independent Lumber Company employed 30 men and 3 horse teams year-round to fell and haul trees along the Chena and Salcha River. The Salcha logging camps were 75 to 85 miles from Fairbanks by water. As Salcha was more than 40 miles from Fairbanks by water, the camp must have been about 20 to 25 miles up the Salcha River. Log drives to Fairbanks were timed for high water periods in the Tanana River. These usually occurred in July. In July 1937, some 10,000 logs were to be driven down the Salcha River; in July 1938, approximately 15,000 logs; and in July 1939, another 13,000 logs. The Kelly Logging Company, which had a crew of 15 men, a tractor, and two horses at work cutting trees during the winter of 1939-40, probably conducted another log drive in the summer of 1940. How many logs were in this drive is unknown. According to the local newspaper, 1940 probably would be the last year that logs would be driven down the Tanana River to the Chena River because the government was planning to start work on a Tanana flood control project. The logs would probably be trucked over the highway to Fairbanks.[91]

From the available records, it is not possible to determine if, and to what extent, loggers used the Salcha River for travel purposes. In 1932 the Fairbanks newspaper reported a rafting accident involving two men who had been cutting logs ten miles above the Salcha River bridge. The two men attempted to raft down the river but the swift current drove the raft into a logjam. One man escaped, but the other, last seen standing in chest-deep water, disappeared. His body was found four years later in the Tanana River. In 1937 the Independent Lumber Company had a boat built in Fairbanks for use in moving men and supplies during log drives. The boat was 33 feet long, powered by an 85-horsepower engine, and drew 8 inches of water.[92] There are indications in the local newspaper that this boat was used on the lower reaches of the Salcha River.

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[89] FDNM, May 14, 1909, 8 and August 11, 1909, 1.
[90] FDNM, August 18, 1911, 4 and July 16, 1928, 1.
[91] FDNM, July 16, 1928, 1; May 9, 1936, 1 and 4; July 17, 1937, 7; July 12, 1938, 3; July 29, 1939, 1; and January 3, 1940, 4.
[92] FDNM, June 16, 1932, 3; July 17, 1937, 1 and 2; and April 23, 1938, 7.

Contemporary/Recreational Use

Today, the Salcha River, only 40 miles from Fairbanks by auto, is a popular recreational stream. Sportsmen visit the stream to fish, mostly for Arctic grayling and Chinook salmon and, to a lesser extent, chum salmon, whitefish, and northern pike. Most fishing, especially for king salmon and grayling, occurs at and near the Salcha River bridge. Hunters, primarily during the moose hunting season, ascend the river in boats. Well over a hundred recreational cabins are located along the river, most, if not all of them, downstream of Butte Creek. From the highway bridge, the owners access their cabins by floatplane or boat.[93]

Beginning in the late 1930s the Salcha River was a popular destination for Fairbanks recreational fishermen and moose hunters. Fishermen usually drove to the river in May in order to fish for grayling over the course of a weekend or a couple of days. If newspaper reports are any indication, nearly all fishing occurred around the highway bridge. Hunters traveled by auto or boat to the Salcha River and then ascended that river for varying distances. They usually spent a week or longer on the river, boating up the river as far as such mining creeks as Caribou Creek and No Grub Creek. In the fall of 1937, for example, George Hanley and Tommy Landon planned to go on a hunting and fishing trip up the river in Hanley's new twenty-one-foot power boat. They planned to spend three weeks on the river, fishing, hunting for moose and sheep, and prospecting between hunts.[94] In the fall of 1940 Lou Joy, Al Slither, and Ed Kreiger, all from Fairbanks, spent a week hunting on the Salcha River in a launch. They went as far upriver as No Grub Creek. In the fall of 1944 two military men (one being Sgt. William Stroecker, a longtime Alaskan) spent a seven-day hunting trip up the river. If newspaper reports are a good indicator, rarely did fishermen fish the upper reaches of the Salcha River. In June 1946, however, a Fairbanks newspaperman named Chuck Gray and Bill English flew to No Grub Creek and spent a successful afternoon fishing for grayling.[95]

After WWII, as Fairbanks's population swelled from a variety of military-related construction projects and improvements made to the Richardson Highway, the Salcha River's popularity as a hunting and fishing stream increased. In the 1950's, the BLM opened land along the lower reaches of the river for entry under the Small Tract Act.[96] A number of local residents applied for these small tracts and built cabins on the land.

Boat traffic increased on the Salcha River, especially on the weekends and during the hunting season. As boat traffic increased, so did the number of boating accidents reported in the

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[93] Clark, Fleming and Ridder, 3. According to the State of Alaska's *Delta-Salcha Area Plan* in 1982 (p. 38), "The Salcha River is a primary recreational area in the region. On the first 57 river miles, there are at least 79 recreational cabins visible from the river. At least eight species of fish are found in the Salcha River, but grayling, chum and king salmon support the major sport angling pressure." The Alaska Department of Fish and Game reports that there are many cabins along the lower 70 miles of the river. See www.sf.adfg.state.ak.us./region3/area/ltan/ltsalcha.

[94] FDNM, August 21, 1937, 3. In 1937 Landon was a trapper and prospector on Caribou Creek. In 1938 his home cabin was reported on Bullfrog Creek.)

[95] FDNM, October 3, 1940, 1; September 22, 1944, 8; and June 4, 1946, 3.

[96] In 1957 the owner advertised the sale of a cabin twenty miles up the river from the bridge to fishermen and hunters. FDNM May 2, 1957. Two men went up to get their cabin in condition. (FDNM May 22, 1958, 7) In the early 1950's, the BLM opened a new small tract area along the Salcha River. Seventeen cabin sites were made available. (FDNM Januray 15, 1952, 3) In 1955 another three tracts were opened for entry. (FDNM May 3, 1955, 2) 21 tracts entered under federal law have river frontage.

Fairbanks newspaper. In late August 1955, four Fairbanks hunters' long, narrow riverboat struck a sweeper (a spruce tree had fallen into the river), flipped up into the air over the 'sweeper' and turned over, dumping the four persons and their gear into the cold stream." The three men and a woman managed to reach the riverbank and were subsequently rescued by several Air Force men in another boat. In the fall of 1961 a University of Alaska professor and his wife swamped their boat on the Salcha River when they ran onto a logjam halfway between Koepke Slough and "Prices Slough" (location unknown), about 30 miles from the highway bridge. A more serious accident occurred later that same month. Three military men hunting moose were thrown into the river when their air boat hit a submerged log and capsized. One man was rescued by a second hunting party; the other two men drowned. A helicopter, small planes, five riverboats and an airboat participated in the search for the two men. Their bodies were not found.[97]

In early 1958 the river was so low that as the season progressed even airboats were reported having trouble in navigating the river. At the beginning of the season, sportsmen reported that the river was low but still boatable. Smoky Altenberger, a local columnist, recorded boating conditions on the Salcha River for that year. In May, he wrote, "the Salcha had a lot of boatmen on it this week. We had a talk with several of the boys that made the trip and they tell us that it was good water all the way." Bill Anderson went up thirty miles "and reported the water in fairly clear condition but a little low. We can bet that that [river] will be one of the best traveled rivers come the Memorial Day weekend." As the Fourth of July weekend approached, Altenberger noted, "Personally, we can say that the Salcha River is not giving up anything easy this year. The water is very low in too many spots. It makes boating a tough job. Our party did catch a few fish but the effort spent per pound of muscle, as to the amount of fish after selecting your favorite spot, is not worth the trip. But then many a fisherman is probably much stronger than we were." Finally, on August 1, he observed: "The Salcha and the Chena are so dry (we should say low) that the airboats are coming back with trouble bound to the bottom." He predicted that recent rains would improve boating conditions.[98]

After statehood, the state government encouraged recreational use of the Salcha River. By the early 1960's a campground with facilities for launching boats was located along the Salcha River on the Richardson Highway. With grants from the U. S. Bureau of Outdoor Recreation, the state improved the campground area over the years. In 1973 the state division of parks reported that additional parking units and a boat ramp had been constructed in order "to take care of the heavy boat traffic traveling up the Salcha."[99]

The state government also opened land to entry along the lower reaches of the Salcha River. The program was very successful. In fact, even before the state launched the program, people were building cabins along the river. The state division of lands reported that 46 cabins had been constructed, and of these only 24 builders had applied for the land.[100] State records indicated

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[97] FDNM, August 29, 1955, 1 and 2; September 6, 1961, 3; October 2, 1961, 1, 3; October 3, 1961, 1; and October 9, 1961, 7. The last known death from a boating accident on the Salcha River occurred in June 1965 A young woman drowned when her twenty-foot Duracraft capsized after encountering two swells, "apparently caused by the dike blocking the river above the Salcha River." The accident occurred a short distance upstream of the Salcha River dock. FDNM, June 21, 1965, 1.

[98] FDNM, May 22, 1958, 7; July 1, 1958, 12; and August 1, 1958, 8.

[99] FDNM, June 18, 1964, 2; May 19, 1967, 1; February 20, 1971, 4; and August 6, 1973, 10.

[100] FDNM, January 23, 1968, 1, 7.

that some 109 state parcels were applied for during the years 1968 to 1973. Most, if not all, are located along the river and are accessible by boat or airplane.[101]

When in the early 1970s the Alyeska Pipeline Service Company, constructing the Trans-Alaska Pipeline System, announced plans to cross the Salcha River at mile 9 (12 miles from mouth) and to build a feeder road from the Richardson Highway along Salcha River to the pipeline crossing, the Salcha River landowners organized the Salcha River Property Owners Association to protest the proposal, especially the proposed year-round road. Bill Stroecker, a leading Fairbanks resident and a member of the association, claimed that the Alyeska route "will damage a salmon spawning area, call for access roads in an area where there presently are none, and ruin the present untouched wilderness area." He proposed the pipeline cross the river near the Tanana River.[102] According to the state commissioner of the department of natural resources, "The Salcha River property owners . . . point out that the Salcha River is a clear stream running through a wilderness in close proximity to Fairbanks, but a wilderness reported to have 180 vacation homes on the river banks over a 40 mile stretch of river."[103]

Alyeska's proposed road up the Salcha River was not built. Instead, the state issued a permit for the construction of an access road from the Shaw Creek drainage area to Salcha River by way of Redmond Creek. In protest, local landowners went to court for relief. Ultimately, the state denied Alyeska permission for a pipeline access road. The company then decided to use the pipeline work pad to access the river. In March 1976 the company excavated the Salcha River crossing and laid the pipeline across the river in 17 days.[104]

By 1976 the Salcha River was a heavily boated river. Kent Sturgis, managing editor of the *Fairbanks Daily News-Miner*, reflected upon the river's recent history:

> The Salcha River has been tamed.
>
> This isn't big news for the people who have been riverboating the Salcha for any length of time. They'll probably tell you the river was tamed long ago. But for me, the realization just hit last weekend.
>
> Once, Fairbanksans ran the Salcha in small prop-driven outboard riverboats. It was not always easy. Even the most experienced boaters could count on shearing a pin or two or bending a prop during low water each summer. But this was all part of the adventure and, besides, those who really wanted to get away from it all were comforted by the fact that these difficulties tended to keep hoards of people from the upper reaches of the river.
>
> Today, the river is like a busy highway. On a warm weekend, the Salcha is crowded by a flotilla of boats ranging in shapes and sizes, including the powerful inboard and outboard jet boats which carry more people farther upriver. For me, the analogy to a busy highway was strengthened by the sight of a youthful hot-rodder who zig-zagged crazily upriver in a gaudy yellow boat dubbed 'The Cat's A--.'

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[101] Alaska Department of Natural Resources 1982, 99.
[102] FDNM, April 13, 1974, 1.
[103] FDNM, April 25, 1974, A4.
[104] FDNM, March 15, 1976, A3. To follow the controversy, see FDNM, January 30, 1975, 3; March 6, 1975, 3; March 7, 1975, 3; March 8, 1975, 1; March 11, 1975, 1; March 15, 1975, 1, 3; and July 22, 1975, 3. For details concerning the construction project across Salcha River, see Dinneford 1977, 1 and 74-75.

> Once, the river was relatively uncrowded and peaceful. People who traveled for several hours to reach their cabins far upriver occasionally wished, especially on rainy days, that the trip was shorter and their cabins closer.
>
> Today, many of those people probably wish their cabins were farther up.
>
> Once, you could venture upriver and put the pressures of city life in your wake.
>
> Today, a chill settles over you as you catch that first glimpse of the pipeline right-of-way cutting up the side of a green hillside far from where the Salcha crosses the Richardson Highway near Harding Lake.
>
> Once, there were relatively few cabins. Most were built out of sight, out of hearing and out of mind of neighboring cabins.
>
> Today, the squeeze is on. More cabins are built every year, and they're bigger and more comfortable. About 25 miles upriver, for example, boaters do a doubletake these days at what appears to be a small apartment complex under construction on the water's edge. This 'cabin,' according to the Salcha grapevine, has four bedrooms, and a massive diesel generator to energize the television, washer and dryer, trash compactor and radio-telephone. All the comforts of home, away from home.
>
> Once, you could go to sleep at night to the sounds of the outdoors: the river, the wind rustling through the Birch trees, the serenade of wild birds, and the noisy conversation of the squirrels.
>
> Today, those sounds can be stilled by the noise of people, as I found out last weekend trying to sleep while a furious domestic dispute raged at the next cabin a quarter-mile upriver, the angry words carrying far through the trees.
>
> This is my view of the changing Salcha River. On one hand, this change is positive, it can be argued, because more people are using and enjoying the Salcha than before—each in his own way. On the other hand, the river is becoming less of a wilderness experience as an increasing number of people use it.
>
> This is a dilemma facing modern-day Alaska. As more people crowd into the Salcha and similar areas, Alaska's shrinking wilderness is in danger of becoming a domain for the wealthy, who have the means to travel farther to reach it.[105]

Small jet-powered boats are the most commonly used craft on this reach of the Salcha River. In the 1970's state biologists studying studied king salmon fry on the Salcha River used an 18-foot riverboat (MonArk) with a 70-horsepower Evinrude outboard/jet as far upstream as the mouth of Caribou Creek. One year, the biologists' boat (perhaps the same one) could only be used as far upstream as Butte Creek.[106]

Only one commercial recreation lodge is located on the Salcha River. John and Kathy Nussbaumer of Fairbanks operate the Salcha River Guest Camp on Horseshoe Slough (local name) about 30 miles up the river. The camp of eight buildings provides accommodations for six guests at a time. To reach the camp, Nussbaumer uses a twenty-three-foot Woolridge inboard jet boat powered by a 454 cubic-inch engine. "It is perfectly designed for this river and handles the shallow water with ease," John wrote. For 2005, June 1 through September 10, the lodge offers two packages: 3day/2night package for $795 and 4 day/3 night package for $1,095.[107]

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[105] FDNM, June 19, 1976, A3.

[106] Dinneford 1977, 28 and 42; Dinneford, 1978, 7.

[107] See the company's website: www.salchariver.com.

Evidence of Use—Salcha River Above No Grub Creek

Today, hunters and recreationists commonly use jet boats and airboats on the Salcha River for considerable distances beyond No Grub Creek. This use appears to be a modern development. Before statehood, reports of boat use beyond No Grub Creek were rare. Historically, most prospecting in this reach has occurred in the headwaters of the Salcha River and its North and South Forks. From the available evidence, it appears that most prospectors usually traveled to these areas by trail or airplane. If they did not use airplanes, they reached the upper reaches of the North Fork over a trail from Caribou Creek or from the upper reaches of the Chena River. In the late 1910's, the head of the South Fork was the scene of a small gold rush, most stampeders traveling to the area over a trail from Shaw Creek, a tributary of the Tanana River, or by mushing dogs up the frozen Salcha River. Most prospectors traveled to the headwaters of the Salcha River over trails from the upper reaches of the Chena River or Birch Creek. However, there is evidence of several prospectors with cabins along or near the main stem of the Salcha River as far upstream as Lost Creek. One of them named John May, who was also a trapper, relied upon a boat to reach his headquarters at Lost Creek.

Little is known about trapping activities in this reach of the Salcha River. From the available evidence, it appears that most trapping in the Salcha River country occurred on the lower reaches of the river. However, a few trappers are known to have spent a few winters in the upper reaches. They include Bert and Mary Hanson on Bullfrog Creek and John May on Lost Creek. Both relied upon boats to reach their trapping headquarters.

Modern maps of the USGS maps show a number of cabins located along this reach of the Salcha River as far upstream as T. 2 N., R. 16 E., FM. These may have been owned by prospectors and trappers. One cabin is located at the mouth of the South Fork; one cabin a short distance up the North Fork, one cabin at the mouth of an unnamed creek in Sec. 23, T. 3 S., R. 13 E., FM; and one cabin at the mouth of Upper Boulder Creek. There are no airplane landing strips shown on the maps in this reach.

Prospecting and Mining

The headwaters of the Salcha River and its North Fork were probably prospected not longer after the Klondike Gold Rush of 1897-98, but few details are known. Gold Creek and its headwater tributaries may have been the focus of early prospectors' attention. On early USGS maps, most creeks in this area are named, which is not the case for other areas of the Salcha. Although prospectors have worked the North Fork's tributaries as well as the main stem of the Salcha River for many years, they are not known to have made any rich strikes.

Prospectors from the Circle district (Birch Creek) traveled overland to the headwaters of the Salcha River. In the fall of 1907 Billy and Allen Stone arrived in Fairbanks after spending seven months in the Salcha River area. They reported that a party of prospectors (including Charles Rogers, a well known Birch Creek miner) from Circle and Fairbanks were opening "a new district at the head of the Salchaket river." They named nine people in the area. Most promising was Lost Creek, a creek that attracted the attention of prospectors in the Circle district about 1901. During the 1907 season, prospectors also staked claims on the Salcha and two other creeks (i.e., Glacier and Willow; location unknown). In the following year, a miner named Jack

Connolly provided the Fairbanks newspaper with a report on Salcha River mining developments. Most prospectors were on Butte and Caribou Creeks and other tributaries further downriver, but some were also working at the head of the Salcha River, about 50 miles above Caribou Creek. One of these men was Folkerson (Folkeson), who had been reported in the area the previous year.[108]

Prospectors reached the North Fork by trail, airplane, and possibly by boat. (Because the North Fork is a very shallow stream, prospectors did not take boats up it.) In 1911 several men were reportedly prospecting Quartz Creek, a tributary of Gold Run Creek. The creek was reported to be "only about fifteen miles across country from the mouth of Caribou [Creek]." In the spring of 1924, prospector A. Evensen returned to Fairbanks with news that he and a partner had made "encouraging discoveries" on the upper reaches of Gold Creek during the winter. Besides them, seven other men had claimed most of the ground. According to Evensen, the ground was accessible by two routes: from the Chena River by way of "Black Shell Creek and over the high divide" (17 miles from the nearest mine on Chena River) or by trail from Caribou Creek (about 21 miles).[109]

By 1938 prospectors were using airplanes to access the North Fork. In 1938 several prospecting parties were flown from Fairbanks to the North Fork. In February 1938 E. G. "Red" LaBelle chartered a plane to take a three months' "supply of grub" to a tributary of the North Fork where he cached it for the summer "when it is impossible to get into that country by plane." LaBelle and his partner J. Gallant planned to hike twelve miles from the Chena to the North Fork in the summer. Although he worked in the Circle district during the summer of 1938, he still planned to return to the North Fork in the winter.[110]

In the late 1930s prospectors discovered nickel deposits on the north side of the ridge near Ricks Creek, between the drainages of the North Fork and the main stem Salcha River. In 1939 Dean Ricks and Ed Sellick staked twelve claims, and in 1940 Ricks staked an additional dozen claims. How they reached the ground is not known. When in 1954 Robert H. Saunders, a territorial mining engineer, inspected the nickel prospect, he noted a tractor trail from No Grub Creek to "the lower part of Bonanza Creek," a tributary of the North Fork below Gold Creek.[111] To access the prospect, Saunders suggested that this tractor trail be extended to Ricks Creek or that a road be constructed from the Chena River. At the time, the prospect "was reached only by traveling on foot. In the winter, and early spring, small, ski-equipped aircraft can land on the North Fork 10 to 12 miles from Ricks' cabin. During the summer it requires about two-and-one-half days of foot travel to reach the prospect from the airstrip at Caribou Creek."[112]

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[108] *Tanana Tribune*, September 28, 1907, 1 and December 23, 1908, 5. In the winter of 1938 Charles Rogers with partners returned to the headwaters of the Salcha River. Several years later, he and Heinie Carstens moved a small gas pump into the upper Salcha River. FDNM, March 12, 1938, 4 and March 1, 1940, 7.

[109] *Fairbanks Daily Times*, June 9, 1911, 4; FDNM, March 3, 1924, 4.

[110] FDNM, September 14, 1938, 4. Other prospectors with freight flown to the North Fork included S. Larson, L. Larson, M. Ruhland (or Ruland), and Will Kitchner. See FDNM, January 11, 1938, 6 and January 2, 1940, 6.

[111] In April 1939, Charles Shields, the No Grub Creek miner, reportedly planned to prospect-drill on Gold Creek during the summer. The newspaper also reported that a crew had completed drilling operations on the North Fork on ground owned by Paul Witner, Cullen Witner, and Jack Taylor, all of Fairbanks. FDNM, April 19, 1939, 3 and 5.

[112] Saunders 1954, 2-4.

Prospectors may also have reached the North Fork by boating up the Salcha River. In 1906 a Fairbanks newspaper reported the departure of E. M. "Black" Sullivan and party for the Salcha River in a poling boat. They intended to prospect Butte Creek, "Sullivan basin," and "Bonanza." There is a tributary of the North Fork called Bonanza Creek. In 1910 O. O. Grummere, a miner on No Grub Creek, reported that a party of prospectors during the winter worked "around the headwaters of the North Fork of the Salcha, but they became disgusted this spring and drifted down stream just behind the ice." In July 1937 John May, a prospector and trapper near Lost Creek, rescued an ill man named Archie McTaggart on Mascot Creek, a tributary of the North Fork. According to the report, McTaggart was taken to Fairbanks in "a small boat." Finally, in 1954, territorial mining engineer Robert Saunders claimed that the Salcha River was "navigable for small boats throughout its length for some distance above the mouth of the North Fork. The North Fork, however, is too shallow for boat travel except perhaps during periods of extremely high water."[113]

Prospectors also worked on the headwaters of the South Fork Salcha River. In July 1918 the Fairbanks newspaper reported that Gus Hegg had made a strike on the "North Fork." It was almost certainly made on the South Fork. Upon hearing of the news, miners on the nearby Goodpaster River and some Fairbanks men rushed to the South Fork. Dan Bandman and William Gorbracht, both from Fairbanks, later returned to town. According to the local newspaper, the two men had lost "their entire outfit by being swamped in a swift part of the river. In making the return trip they were four days without anything to eat except some water soaked barley. They were not disheartened by their accident, but returned to town and secured another outfit." This time, however, they planned to wait for snow before returning to the South Fork.[114]

In the winter of 1918-19, there was a small gold stampede from Fairbanks to the headwaters of the South Fork. Driving dog-teams, the stampeders' destination was a creek variously called Joy Creek, Ray Creek, or Roy Creek in the local newspapers. The South Fork was described in the local newspapers as 52 miles from Munson's, and "Joy Creek" was 20 miles up the South Fork. The strike could be accessed by way of Shaw Creek, a tributary of the Tanana, or by the Salcha River. The latter route, however, was described as "not the best and the divides are high."[115]

The stampede was short-lived. In late January George Moody returned to Fairbanks from the upper Salcha with the first eyewitness account of the new camp. The stampede was unwarranted, he maintained. "The country is a prospector's paradise, as regards conditions surrounding prospecting, and there is every reason to hope that they will uncover pay there in time and make a camp there, but to date they have uncovered nothing worth while, nor have the workers there sent out any word that they have found anything as yet," he said.[116] By April 1919 there were only three men in the camp.[117]

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[113] *Yukon World*, October 2, 1905, 1; FDNM, June 14, 1910, 1 and July 22, 1937, 4; and Saunders 1954, 3.
[114] FDNM, July 13 (p. 4), July 20 (p. 4), July 22 (p. 4), October 14 (p. 4), and November 26 (p. 1), 1918; and *Alaska Citizen*, August 19, 1918, 8.
[115] *Alaska Citizen*, January 20, 1919, 6.
[116] FDNM January 28, 1919, 1. See also *Alaska Citizen*, February 3, 1919, 3.
[117] *Nenana Daily News*, January 28, 1919, 4; *Alaska Citizen*, February 3, 1919, 3.

There are few reports of prospectors working on other tributaries of the Salcha River. In 1913, for example, prospectors were reported at work on Goose Creek and Pasco Creek. Gus Hegg and Roy Heinsley were on both creeks; Branstetter worked on Pasco Creek. (Both Hegg and Branstetter had substantial holdings on Caribou Creek.)[118]

Little is known about mining activities on the Salcha River since statehood. In the early 1990s Roger Redfern and Ted Leonard owned a mine just below Porcupine Creek (Mile 93), a left bank tributary of the Salcha River. Redfern first entered the Salcha River country in 1967; Leonard has been there since at least 1974. Both men use airboats to reach the mine. Leonard's airboat was 16 feet long and had a beam of 7½ feet. Redfern's boat, 18 feet long, was equipped with tanks large enough for 385 gallons of fuel.[119]

Hunting and Trapping

Local newspapers sometimes carried reports of hunters and trappers, both white and Indian, on the Salcha River in boats. The articles, usually sparked by news that someone was missing, seldom contained details necessary to determine how far upriver they traveled. During the 1930's, 1940s, and the 1950's, the names of John May, Bert and Mary Hanson, Tommy Landon, Johnny Cross, Ward Carroll, Edwin Read, F. T. Koepke and Tony Temple appeared in the newspapers as trappers residing in the Salcha River country.[120] Most were located along the lower reaches of the Salcha River. A few were located above No Grub Creek, however.

John May, a prospector, miner, and trapper, used to trap in the headwaters of the Salcha River. May first entered the Salcha River country in 1909. Nothing is known about his activities until 1924 when he was reported at the July 4th celebration at the Caribou Creek mine. In the summer of 1926 he and partners "found good prospects" on Goose Creek, a tributary of the Salcha River between No Grub Creek and the South Fork. In the spring of 1933, he was a passenger on a plane from Salcha to Fairbanks. Taking note of his arrival, the local newspaper reported that he was a well known Fairbanks miner returning from a prospecting trip in the Salcha River country.[121]

May eventually decided to spend the winters in the upper reaches of the Salcha River. In 1936 he poled a boat up the Salcha River as far as Lost Creek. On March 31, 1937, he showed up at Fairbanks, surprising many friends who believed that he had drowned in the Salcha River. Interviewed by a reporter, May said that on August 6, 1936, he started out poling his boat—a "28-foot river hull" —up the Salcha River. He poled as far upriver as the mouth of Lost Creek, an estimated distance of 135 miles (river mile 109), where he cached most of his supplies. He then walked forty-five miles to the headwaters of the Salcha and made camp. During the fall he prospected and performed assessment work on his claims on Alder Creek (location unknown).

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[118] *Fairbanks Daily Times*, April 16, 1913, 3.

[119] Personal communications, Roger Redfern and Ted Leonard to Edgar Earnhart, July 20, 1993. See memo, Edgar A. Earnhart, Navigable Waters Specialist, to File F-88697 (2627), October 7, 1993, BLM records, Anchorage.

[120] Trappers Ward Carroll, Edwin Read, F. T. Koepke, and Tony Temple operated on the lower reaches of the Salcha River. The newspaper accounts cited the use of dogteams (and in one case a tractor) to reach the trapping grounds. See FDNM, January 30, 1945, 3; March 26, 1947, 3; and March 16, 1953, 1.

[121] FDNM, July 11, 1924, 8, July 27, 1926, 1, and March 22, 1933, 4.

During the winter, he trapped, succeeding in six weeks' time in getting 41 marten, 4 mink, and 7 wolverine. This was not an easy task, he reported. The snow was so deep (6 feet) that even moose had trouble getting around, many of them preferring to browse around his cabin. After nearly seven months of not seeing a human being, he decided to head back to civilization and started down the frozen Salcha River. He had reached No Grub Creek when he managed to catch the attention of pilot Herman Lindahl of Wien Alaska Airlines who was en route to Fairbanks from the Goodpaster River. Lerdahl landed the plane on the Salcha River ice and transported May to Fairbanks.[122]

May spent at least another winter at Lost Creek. In July 1937 he and Adolf Olson discovered a sick prospector named Archie McTaggart on Mascot Creek, a tributary of the North Fork Salcha River. The two men transported the sick man to Fairbanks in a small boat. May told the local newspaper that he planned to return to Lost Creek with his poling boat loaded with supplies. In March 1938, a prospector on the North Fork, noted that John May, a "trapper on the main branch of the Salcha, has done very well, and probably will return to Fairbanks this month." In late May 1938, May again returned to Fairbanks with a load of furs, including six black wolf pelts. He told the local reporter that he had spent most of his time prospecting on Lost Creek and Paldo Creek. He had boated down the Upper Salcha to No Grub Creek, where he caught a plane to Fairbanks.[123]

Nothing is known about May's subsequent activities until his obituary was published in the Fairbanks newspaper in 1953. The newspaper's account of his death suggests that the old prospector died at his Lost Creek cabin. According to the obituary, on December 10, 1953, May died alone from a heart attack in his cabin "at his beloved No Grub creek." However, the account of how May's body was brought to Fairbanks suggests that he died farther upriver. An unidentified man, the only other person living on the creek, found May's body in the cabin. He then transported the body by dogsled to Caribou Creek, "70 miles away." If this figure is correct, Lost Creek is the more likely location of May's cabin than No Grub Creek, which is less than five miles from Caribou Creek. The fact that the musher said it took many days to reach Caribou Creek further suggests that May did not die at No Grub Creek but somewhere farther up the Salcha River. It took forty-three days to deliver the body to Fairbanks. An Alaska Airlines plane transported the body from Caribou Creek to Fairbanks.[124]

Bert and Mary Hanson also spent time on this reach of the Salcha River. After several years of planning and preparation, the couple left the Fairbanks restaurant business for an adventurous life of prospecting, trapping, and hunting in the Salcha River country. In the summer of 1937 Bert established a tent camp on Bullfrog Creek, about a mile downriver of No Grub Creek, and, with the assistance of Tommy Landon, a prospector and trapper on Caribou Creek, moved their

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[122] FDNM, March 31, 1937, 5, and April 1, 1937, 2.

[123] FDNM, July 22, 1937, 4, and March 12, 1938, 4; and *Alaska Miner*, May 31, 1938, 5

[124] FDNM, January 21, 1954, 1. As additional evidence that May died in the vicinity of Lost Creek, the obituary noted that May's favorite creek, where he died, was 160 miles from Fairbanks. Salcha is approximately 40 miles from Fairbanks by road, and Lost Creek is approximately 110 miles from Salcha. See also Alaska Department of Health, Bureau of Statistics, Certificate of Death No. 1231, January 22, 1954, copy in file FF-094263, BLM records. May's death certificate contains little additional information. The man, never married, was born about 1880 in Texas and died sometime between December 1 and 10, 1953. No Grub Creek is cited at the place of death. He was buried at the Birch Hill cemetery, Fairbanks.

supplies, equipment, and a team of Siberian Huskys in a twenty-four-foot-long motorboat from Salcha and the Caribou Creek landing field to the new camp. It was tedious work, Mary reported. Low water made freighting by boat difficult over bars and shoals. Once the river was frozen, the Hansons set their traps on the South Fork and explored the North Fork. A Fairbanks man prospecting on the upper reaches of the North Fork later reported on a visit from the couple. In early April they mushed to Salcha and Fairbanks with their winter catch of furs. They had caught 28 marten, 13 mink, a wolverine, and a 7½-foot-long wolf. Later that month, Bert announced his intent to fly to Bullfrog Creek after the spring breakup and return to Fairbanks with his boat.[125]

The Hansons may have spent another winter on the Salcha River, but the record is not clear on this point. In 1939 they moved to Big Delta on the Tanana River where they operated a roadhouse and sport fishing lodge for many years.[126]

Other trappers may have had their headquarters on the upper reaches of the Salcha River, but the historical record is silent on their activities. It is worth noting, however, a report in the 1990's that a trapper named Charlie Boyd used to spend the winter on the upper reaches of the Charley River, a tributary of the Yukon River, and then descend the Salcha River in the spring in a Grumman canoe loaded with furs. He reportedly caught 400 marten one year. This report has not been verified.[127]

In more recent years, the Upper Salcha River has attracted moose and caribou hunters. Some hunters are flown to sandbars near Paldo Creek (Mile 107) and Stone Boy Creek (Mile 103). From this point they descend the river in inflatable rafts and sometimes canoes. In mid September 1991, Eric Arneson and two other hunters were landed "on a mountaintop" near Williams Creek (T. 3 N., R. 18 E., FM). They bagged a moose and carried the meat down the Salcha, dragging the raft when necessary across shallow sections, as far as Paldo Creek (where the plane picked them up) in a fourteen-foot Avon inflatable raft. In 1980 and again in 1983 Karl Monetti and a companion ascended the Upper Salcha in a jet boat to the North Fork on one trip and some fifteen miles farther beyond on the second journey, where they launched their seventeen-foot canoe and continued up the Salcha to Stone Boy Creek, which they followed to its head and crossed the divide to the Upper Charley River. They then descended the Charley River to the Yukon River. Arneson described his trip as something he wouldn't do again. Monetti described his trips as "a challenge."[128]

Most people ascend the river in jet boats and airboats. How far they go depends upon a number of factors, such as water depths, whether or not the water is rising or declining (something that happens rapidly), the degree of risk in damaging the boat on boulders in the channel, the boat's

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[125] FDNM, September 16, 1937, 3; November 9, 1937, 6; January 1, 1938, 3; March 12, 1938, 4; April 4, 1938, 8; and April 29, 1938, 6.

[126] In 1949 Bert Hansen advertised for sale a 24-foot shovel-nose riverboat with a lift and a 22-horsepower Johnson motor. This could have been the same boat he used on the Salcha River in 1937 and 1938. FDNM, June 10, 1949, 7.

[127] Personal communication, George van Whye to Edgar Earnhart, July 22, 1993. See memo, Edgar A. Earnhart to File F-88697 (2627), October 7, 1993, BLM records, Anchorage.

[128] Personal communication, Eric Arneson to Ed Earnhart, August 5, 1993; Karl Monetti to Ed Earnhart, July 22, 1983. See memo Edgar A. Earnhart to File F-88697 (2627), October 7, 1993, BLM records, Anchorage.

payload, and how much fuel the boat is carrying. In the early 1970's, the owner of Compeau's (a boat dealer) at Fairbanks ascended the river approximately 125 miles during high water stage. This record ascent would have taken him to beyond Boulder Creek (rivermile 118).[129] Ted Leonard, who with Roger Redfern owns a mine near Porcupine Creek (rivermile 93), stated that he has traveled to this area in an airboat on a hunting trip. On one trip in the early 1990's, he and two other people managed to reach a point beyond Lost Creek (rivermile 109) before turning back because of large boulders in the channel.[130] On one weekend in September 1993, Vern Hines, a cabin owner on the lower Salcha River, took his eighteen-foot jet boat with a Ford 302 inboard engine to Lower Boulder Creek (rivermile 81). He reported seeing many jet boats and airboats on this trip, even beyond Lower Boulder Creek.[131]

In 2005, the BLM received additional evidence of boat use on the Upper Salcha River. In the fall of 2003 two moose hunters intending to raft down the river were landed at Paldo Creek (rivermile 107). They chose to start the journey at Paldo Creek, thinking that they "could get away from power boats – WRONG! Outfitters with airboats go all the way to Paldo Cr, maybe a little above?"[132] Another hunter claimed that he and others had run a jet boat "above the splits [between the North and South Forks] . . . countless times" with "no major problems."[133] In 2005 John Nussbaumer, owner of the Salcha River Guest Camp, informed a State employee that he has "regularly" taken his twenty-three-foot jet boat as far as the Upper and Lower Boulder Creeks. He has not taken the boat farther upstream because he did not want to risk damaging his boat on the boulders in the channel. Ron Redfern told the same employee that his father, Roger, who has been using airboats on the Salcha River since the late 1960's, "routinely navigated well beyond Dan Creek during the fall hunting season," perhaps has much as over twenty-five miles upstream of the mouth of Dan Creek (rivermile 113).[134] Finally, "Skip" Theisen at the BLM's Northern Field Office reported that the river is easily navigable for jet boats and airboats to the "Forks" at or near Paldo Creek.[135]

Some boaters emphasized the importance of paying attention to water levels, even on the lower Salcha River. In 2003, for example, one recreationist ascended the river seventy-five miles from the Richardson Highway in a lightly loaded nineteen-foot boat with a ninety-horsepower jet motor. It took him nearly twelve hours to travel that far. Describing the river as "a mix of pools and gravel bars," he warned other jet boaters to "take plenty of fuel and make a base camp near a deep hole so you can get on pad if the water level starts to drop. If you need more than 4 inches of water, you won't get to the village of Caribou . . . . There is very little room for error on this river since the bottom is mostly rock and gravel and you could end up on a long float trip back to the ramp if you get in trouble."[136]

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[129] Grumman Ecosystems Corporation, vol. 1, 3-48, 3-49, 4-323.
[130] Personal communication, Ted Leonard to Ed Earnhart, July 20, 1993. See memo, Edgar A. Earnhart to File F-88697 (2627), October 7, 1993, BLM records, Anchorage.
[131] Personal communication, Vern Hines to Ed Earnhart, September 20 and 21, 1993. See memo, Edgar A. Earnhart to File F-88697 (2627), October 7, 1993, BLM records, Anchorage.
[132] See www.outdoorsdirectory.com/akforum/akhunting/17472.htm.
[133] FarmerGrant, post no. 17301, March 31, 2004, *ibid.*
[134] Jim Szender to File, June 21, 2005, attached to letter, Scott Ogan to C. Michael Brown, June 22, 2005, file FF-094263, BLM records, Anchorage.
[135] C. Michael Brown to File FF-094263, July 18, 2005, BLM records, Anchorage.
[136] Joe, post no. 17289, March 31, 2004, *ibid.*

Other Evidence of Use

Between the Second World War and Alaska statehood, there is almost no documentary evidence of boat traffic on the Upper Salcha River. In 1941 the local newspaper reported the success of two airmen in rafting down the river. Flying an Army Air Corps 0-38 plane, the two men made a forced landing in the Upper Salcha country, some 25 miles from the river. After a bomber dropped supplies to them, they hiked six days to the river. Another plane then parachuted an 8-x-10-foot inflatable raft to them. With this they floated down the river 15 miles to Caribou Creek where there was a suitable airstrip. If the report of a float of 15 miles is correct, they may have put in on the Salcha River upstream of the mouth of the North Fork.[137]

After statehood, government biologists conducting studies on grayling have also used boats and inflatable rafts on the Upper Salcha River. In the early 1970's, Terry Bendock ascended the river to a point just beyond Dan Creek (Mile 113) in an eighteen-foot-long, flat-bottomed boat with a fifty- or sixty-horsepower outboard motor with a jet unit. He decided not go farther because he did not want to risk damaging the boat on the numerous boulders in the channel. In the early 1980's, Rolland Holmes and another man, after landing in a small plane near Dan Creek, floated down the river in a twelve-foot Avon raft. They encountered many boulders, but maneuvered around them with little difficulty.[138]

Conclusions

In assessing the navigability of inland water bodies, the BLM relies upon federal administrative case law and the advice of the Interior Department's Solicitor's Office. The classic definition of navigable waters is found in *The Daniel Ball*, 77, U.S. (10 Wall.) 557 (1870). Pertinent DOI Office of the Solicitor's opinions include Associate Solicitor Hugh Garner's memo or March 16, 1976, ("Title to submerged lands for purposes of administering ANCSA") and Regional Solicitor John Allen's memo of February 25, 1980 ("Kandik, Nation Decision on Navigability"). The agency is also guided by the Submerged Lands Act of 1953 and the Submerged Lands Act of 1988.

The BLM's master title plats show that the State of Alaska is the principal owner of lands along the Salcha River. The State owns most riparian lands from the Salcha River's mouth upstream to and through T. 3 S., R. 14 E., FM, and in T. 1 N., R. 16 E., FM, upstream to the head of the river in T. 3 N., R. 19 E., FM. The BLM continues to manage the riparian lands in Tps. 2 S., Rs. 14-16 E., FM, and T. 1 S., R. 16 E., FM. The remaining riparian lands were conveyed to private individuals under the Native allotment, homestead, and small tract laws. In numerous small tract patents located along the river in Tps. 5 S., Rs. 4-6 E. and T. 4 S., R. 7 E., FM, the United States reserved the mineral rights.

The BLM's land records also show that the State of Alaska, where it is the riparian landowner, owns the lands underlying the Salcha River. In its decisions to convey lands along the Salcha

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[137] FDNM, June 18, 1941, 1 and June 26, 1941, 8.

[138] Personal communications, Terry Bendock to Ed Earnhart, July 19, 1993, and Rolland Holmes to Ed Earnhart, July 22, 1992. See memo, Edgar A. Earnhart to File F-88697 (2627), October 7, 1993, BLM records, Anchorage.

River to the State, the BLM determined the navigability of various reaches of the Salcha River. The Salcha River in T. 5 S., R. 5 E., FM, extending upstream to and through T. 3 S., R. 14 E., FM, was determined to be navigable. The Salcha River in T. 1 N., R. 16 E., FM, extending upstream to its head in T. 3 N., R. 19 E., FM, was determined to be nonnavigable. All these decisions, insofar as navigability is concerned, were not appealed. [139] Since the State of Alaska was a party to these BLM decisions, the navigability determinations are binding under the principles of administrative finality.

In its decisions to convey riparian lands in T. 5 S., R. 4 E., FM, the government did not determine the navigability of this reach of the Salcha River (i.e., the first five and a half miles of the river from its confluence with the Tanana River). In 1921 the federal government surveyed the exterior boundaries, section lines, and meanders in T. 5 S., R. 4 E., FM, and, in accordance with traditional survey practices applying to rivers and streams averaging more than three chains (198 feet) in width, the river was meandered and the riverbed segregated from uplands. Subsequently, most riparian lands in this township were patented to private individuals, a Native individual, and the State of Alaska. In several patents issued under the Small Tract Act, the federal government reserved the mineral rights.

To sum up, the United States may have an interest in the lands underlying the Salcha River in eight townships. The BLM manages the riparian lands in four townships in the upper Salcha River: Tps. 2 S., Rs. 14-16 E., FM, and T. 1 S., R. 16 E., FM. (The State of Alaska has selected all available lands in these townships.) The BLM also manages the riparian lands in U.S. Survey No. 4253 (five acres) in Section 13, T. 5 S., R. 5 E., FM. In addition, mineral interests were reserved in numerous small tract patents to lands abutting the Salcha River in four other townships. There are seventeen patents with mineral reservations in T. 5 S., R. 4 E., FM.[140] There are also two such parcels in T. 4 S., R. 7 E., FM,[141] seven in T. 5 S., R. 6 E., FM;[142] and two in T. 5 S., R. 5 E., FM.[143] If the river is navigable, title to the riverbed passed to the State at the time of statehood; the United States would not, therefore, have an interest in the riverbed where it abuts these riparian lands. If the river is not navigable, the United States, as a riparian landowner, would have an interest in the lands underlying the river.

After reviewing the State's application (as amended) and supporting evidence, land status, the historic record pertaining to the Salcha River, legal guidance on title navigability, and previous final BLM determinations of navigability and nonnavigability, we affirm that the Salcha River is navigable from its mouth at the Tanana River to the mouth of Lost Creek in Section 15, T. 1 S., R. 16 E., FM. Trappers, prospectors, and miners have used this reach of the river as a route of travel and transportation by boat to their headquarters, prospects, and mines. The mouth of Lost Creek was the head of navigation for trappers and prospectors. The historical record shows that in the late 1930's trapper John May spent at least two winters on the Upper Salcha River. In

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[139] As concerns submerged land ownership and land conveyances under the Alaska Statehood Act, see Section 101 of the Submerged Lands Act of 1988 (P.L. 100-395), amending ANILCA Section 901(b)(1).

[140] Ten are located in Section 22: patent nos. 1146833, 1200571, 1231955, 1179455, 1146829, 1179453, 1148038, 1150973, 1179443, and 1147534. Seven are located in Section 23: patent nos. 1200572, 1200573, 1177710, 1177711, 1210592, 1200574, and 1208793.

[141] See patent numbers (nos.) 50-70-0015 and 50-67-0076.

[142] See patent nos. 50-67-0354, 50-67-0399, 50-67-0460, 50-67-0133, 50-67-0416, 50-67-0589, and 50-67-0331.

[143] See patent nos. 50-66-0560 and 50-67-0423.

both years he ascended the Salcha as far as the mouth of Lost Creek in a twenty-eight-foot poling boat. The likelihood is high that other trappers regularly used or could have regularly used boats to ascend this reach of the river as well. The historical records over many years contain references to other trappers and prospectors in the area but do not specifically describe their use of boats. In the vicinity of Paldo Creek, several miles below Lost Creek, the river is said to average 110 feet in width and four feet in depth. The river is likely shallower at Lost Creek, but it is not believed to be too shallow for commercial navigation. There are also many contemporary reports of boaters using this reach of the river. Therefore, the State's application for these lands underlying the Salcha River should be approved.

We recommend that action on the State's application for the approximately three-mile-long reach of the Salcha River upstream from the mouth of Lost Creek be suspended. This reach of the river is located in Sections 2, 3, 10, 11, and 15 (part upstream of Lost Creek mouth), T. 1 S., R. 16 E., FM. We lack sufficient information to determine the navigability of this reach with certainty. More information about the physical character of this reach, in addition to its historical and current uses, is necessary.

The BLM has not been provided with information concerning the location of "interconnecting sloughs." To the extent that "interconnecting sloughs" existed at statehood and the waters of the navigable portions of the Salcha River flowed through them and still flow through them, they will be included without mention in a disclaimer of interest in the lands underlying the navigable portion of the Salcha River.

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